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Operating-Room Technic

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THE methods of handling surgical cases and the operating-room technic of hospitals are constantly changing to keep pace with the advances made in surgery. Many institutions have perfected methods giving splendid satisfaction for themselves that may be entirely unsuited for some other institution doing a different class of work, managed differently, or having a different environment. While the general principles of operating-room procedures are the same for all hospitals, there is much variance in minor details of method and technic.

Each institution must, to a certain extent, develop methods suited to its particular requirements, yet each can gain much by studying the methods developed by other hospitals doing similar work. Even in the different operating rooms of Mercy Hospital the technic varies slightly according to the preference of the surgeon or the character of the work.

The methods employed at Mercy Hospital do not differ greatly from those in use in other places. They are presented merely as methods that are being successfully used in a hospital doing a large amount of surgical work. They have the merit of simplicity which in turn implies economy in supplies, economy in time, and economy in the number of persons assisting. "The greater the surgeon, the fewer the fads and instruments," is more than half true. The main thought at Mercy Hospital is to get the patient well with as little loss of time as possible; whatever is unnecessary is eliminated. Good technic is not measured by the number of assistants and nurses in the operating room any more than asepsis is measured by the size of the pile of soiled linen. If every hospital would keep a strict account of the amount of material used, the amount of linen soiled, and the amount of time of all assistants, anesthetists, nurses, and orderlies, supplied to each surgeon working at the hospital during a period of six months, the results in most instances would be startling to the surgeon and to the hospital authorities.

Location of Rooms and Their Appointments

The operating rooms should, as far as possible, be isolated so that the patients of the hospital may not be disturbed by sounds from it nor annoyed by the odor of the anesthetics. The room should not be so large as to require unnecessary walking and yet should not be so small as to interfere with a perfect aseptic technic. Daylight is preferable in the operating room and can be obtained best by having the entire northern exposure of glass. Artificial illumination should be electric. An overhead cluster of lights is satisfactory but there should be two sets of lights having different fuses so that should one fuse blow out there would be another set of lights available. There should also be lights for general lighting purposes on separate fuses. Gas for emergencies to substitute for electricity has been satisfactory but a spotlight attached to a set of batteries is better if it can be obtained. The ventilation in the operating room should be indirect. If this cannot be arranged it is the duty of the nurse and the anesthetist to see that there is no direct draught on the patient. Heating should be by a steam or hot-water system. The temperature should be 75 to 80 degrees F. To facilitate thorough cleansing, everything in and about the operating room should be plain, simple, and of such material and construction as will bear repeated washings and scrubbings. Enameled or tiled walls and tiled floor are very serviceable.

The Personnel of the Operating Room

The only persons permitted in the operating room during an operation at Mercy Hospital are the patient, the surgeon, the assistants, the anesthetist, and the sterile and the nonsterile nurse. Only in very rare cases is an exception made to this rule. However, an observation balcony has been supplied for the benefit of the clinic and the student body. In the operating room "each works for all and all work for the patient." There must be discipline and teamwork. To maintain discipline, each and every one must know his or her exact position, rank, and duties. There never is any question as to who is in charge, who may give orders, or who must take orders. Here, more than anywhere else in the hospital, where every one is working under high tension, an order given should rarely be questioned.

The Qualifications of the Operating-Room Nurse

The work of the operating room is strenuous, the nerve strain during an operation is great, the hours on duty may be long and irregular, therefore, the nurse must be strong physically. The operating surgeon having the life of the patient in his hands, is working under great nervous tension. Numerous and conflicting orders are sometimes given. The nurse must, therefore, be on

the alert—she must have self-control and she must exercise good judgment. Patience with the operator is essential. Her reaction time must be short. "No sooner said than done" is here of vital importance. The operating-room nurse must be able to think logically, to plan her work beforehand and carry it out consistently and systematically. She must, above all, be conscientious to the minutest details, since the least carelessness on her part might mean delayed convalescence or even cost a patient's life. To become a capable surgical nurse one must not only know what to do but must know how and when to do it, so that the teamwork which is demanded during an operation may not be interfered with. The one word that best describes the nurse in the operating room is "anticipation." She must be alert to see and swift to act so as to be equal to any emergency. To anticipate the wants of the surgeon and his assistants so as to minimize delay and avoid the annoying moments of waiting should be the guiding principle of her technic.

Procedures Preliminary to Operations

The surgeons begin their work at 8:00 A.M. and continue until the schedule of operations for the day is completed. Emergencies, of course, are always given preference. The schedule for the day is sent to the operating room the preceding afternoon so that preparations can be made accurately for the kind and amount of material required. In the afternoon the autoclave and boilers are prepared for the next day's work. In the large boiler are placed: One pitcher and one small measure. In the small boiler are placed: A pan containing lifting forceps, extra forceps, and the iodine cup. In the autoclave are placed: All basins required, wrapped separately in several thicknesses of cloth to make them safe from contamination; all abdominal packs, salts, and long packs. These are then sterilized for one hour under twenty pounds of pressure. Basins and packs are not removed until the next morning when they are taken out as required for operation. Extra laparotomy sets, breast sets, goiter sets, towels, dressing sponges, and specimen pans are kept sterilized ready for immediate use. Next the gloves are prepared for the morning. Gloves are all tested and if necessary mended. They are then powdered, turned, and sorted. The first set are new gloves, unmarked, and are for the surgeon; the second set have the cuff turned back one fold and are for the first assistant; the cuffs of the third class are turned back two folds to mark them for the second assistant; gloves for the nurses are marked by inserting the cuff of one glove into the cuff of the other. Gloves are packed in sets of four each and are placed in the large boiler. The dressing table with the necessary solution bottles properly filled and the dressing material that may be required is placed in position. The anesthetist's table with the proper supplies and the emergency tray containing all necessary stimulants and restoratives that might be needed, complete the preparation for the day.

At 7:00 A.M. the next morning water is turned into the boilers and steam turned on. The contents are boiled for thirty minutes. At 7:30 A.M. the pan containing the lifting forceps is taken from the boiler and placed on the table in the sterilizing room. In its place in the boiler is put the tray containing all the instruments required in the course of the operation with the exception of cutting instruments. These, with the exception of the Parker blades, are added to the tray after the original supply has boiled twenty minutes. After another seven minutes of boiling, the blades are added and boiling continued for three minutes. This completes the sterilization of instruments. The blades are now removed from the boiler and placed in a 70 per cent solution of alcohol. By means of sterile forceps the abdominal packs are removed from the autoclave and opened. Two tables are draped with sterile sheets and towels. On one are placed all instruments arranged in their proper order; three small basins containing: Catgut taken from a 1:1,000 bichloride solution; Silkworm taken from a 4 per cent iodine solution; Silk taken from a 70 per cent alcohol solution; and Dermal sutures previously boiled for two minutes. On the other are placed sponges, salt packs, long packs, forceps for handling gauze, a small basin of 70 per cent alcohol and the cup containing 7 per cent iodine solution. The two basin stands are next draped and the basins put in place. In one is put sterile water for the gloves and in the other sterile water for washing hands during operations.

PROBATIONERS, ST. FRANCIS HOSPITAL, PITTSBURGH, PA.
—Photo by Armstrong.

One of the most stringent rules in our modern operating room is that no one should ever be permitted to do any work in the operating room without having made a complete change from street clothing to white operating suits even to the change of shoes. The scrubbing of hands is of extreme importance. Hands and arms are scrubbed with soap and water for at least ten minutes. Surgeons' green soap is used with taps of hot and cold running water. An ample quantity of soap worked into a lather is rubbed into hands and arms; nails are cleaned with a file. Hands and arms rinsed, resoaped, and the palms of the hands and finger nails scrubbed with a brush; they are then rinsed thoroughly in water as hot as can be borne, carefully removing every trace of soap. Then the hands and arms are rinsed in 70 per cent alcohol and the tips of the fingers dipped into a 5 per cent solution of iodine. After this procedure the surgeon and his assistant are ready for their sterile gown and gloves.

ST. JOHN OF GOD

St. John of God, whose picture appears on the cover of this issue of HOSPITAL PROGRESS, *founded the Hospitallers of St. John of God. The Congregation was founded in Granada with the help of Archbishop Don Guerrero and hospitals were established in several Spanish cities.*

The holy founder died in 1550. In 1576 Pope Gregory XIII built for the Congregation a hospital in Rome which is today their motherhouse. At the time of the French Revolution, the Brothers had 39 hospitals in France. Today the French Brothers of the Congregation have ten hospitals in France and Belgium. The Congregation also has houses in Italy, Spain, Austria, Germany, Poland, Hungary, Mexico, Canada, England, and one in Ireland.

The feast of St. John of God is celebrated on March 8.

The Preparation of the Patient

Of all the preparatory work essential to a surgical operation no procedure is more difficult or more diversified than the preparation of the patient. The nurse is necessarily compelled to correlate her efforts in such a way that when the task is completed she has a fairly complete asepsis. None of the methods of surgical technic has changed so often as that of preparing the patient. One rule or another is being modified every year. Each new beam of scientific light creates new conditions, and we perforce must adapt ourselves and our work to comply with the requirements of more recent knowledge. The tendency is to do away with the elaborate and time-consuming methods of the past whenever it has been satisfactorily demonstrated that a simpler technic is equally efficient and reliable.

Every individual submitting to surgical interference and its resulting confinement in bed for a longer or shorter period of time should spend at least 24 to 36 hours in bed in preparation for the ordeal. An operation is a distinct strain on the nervous system and the rest will aid the patient. A good night's rest is absolutely essential even if it is necessary to resort to a hypnotic. All our surgical patients are given Veronal in hot milk on retiring the night previous to the operation. The patient is also digitalized in most cases. A cleansing bath, the preparation of the field of operation and a thorough flushing of the colon by means of enemas is evening preparation. On the morning of operation the patient is given a hypodermic of morphine with atropin a half hour before going to the operating room and is catheterized just before being taken to surgery.

The patient is taken to the operating room in the wheel chair by the nurse. It is both unwise and unnecessary to surround the operating room with such an air of mystery and horror that the patient is led to dread the sight of it and that he cannot be taken to it until he is asleep. The modern operating room is interesting and attractive and a view of it will be an encouragement to most patients. At Mercy Hospital the anesthetic is administered in the operating room and the preparation of the field goes on at the same time. This saves from twenty to thirty minutes on each operation and does away with the heavy lifting of patients unnecessarily. The patient is assisted to the table by the nurse, whose duty it is to see that the patient is in the proper position for the particular operation to be performed. She must see that the operative field is properly exposed and that there is no interference with the circulation or with free respiration. There should be no pressure on any nerves. Arms must be properly restrained and all parts of the body not involved are covered with blankets. These are then covered with a sheet and the instrument tray adjusted close to the operative field, which must be prominent and accessible.

The operative field is prepared by cleansing with benzine and ether. The skin is allowed to dry before applying the iodine. It is essential in using iodine as an antiseptic that the skin be dry, as iodine does not penetrate the pores if the skin is wet. Usually the iodine is removed with alcohol as soon as it is dry. This preparation completed, four sterile towels are placed around the region where the incision is to be made and the whole patient covered with a laparotomy sheet with an opening to work through. A small sheet is placed above the operative field passing over the screen and attached to it by four clamps. Two towels are then placed over the instrument tray.

The Handling of Instruments

The instrument tray is the work table of the nurse. The instruments placed upon this tray are those used

in practically every operation. All the special instruments are put on the reserve table. The arrangement, kind, and number of instruments on the tray should always be the same. They must be kept in a definite and orderly manner so that the operator, his assistant, and the instrument nurse accustom themselves to this arrangement. In this way any omission is easily detected. The instruments should be placed as nearly as possible in the order in which they are going to be used. The handles should be so placed that when the instrument is passed to the surgeon it is in the proper position to be used. All waste motions must be avoided. If during the course of an operation a nurse notices that the handling of some instruments is not smooth, she should study the various ways of passing this instrument until a method of avoiding the waste motion is discovered.

The main points to be remembered in handling instruments are the following:

Never place any more instruments on your tray than will actually be used. Cluttering up a tray with too many instruments is confusing.

Replace instruments on the tray from the reserve supply as soon as the original ones are in use or become dirty.

Keep like instruments together.

When an instrument has been used once, discard it if you have a sufficient supply; if not, wipe it with a wet sterile sponge and put it back in the regular place.

Always keep the towel under your instruments dry and clean. If it becomes bloodstained, replace it with a clean towel.

Do not allow instruments not in use to lie on the patient. Clean them and replace them on the tray.

Never use dull knives.

Never give more than one clamp at a time.

Test all artery clamps and see that they work easily.

In handling sutures always remember:

Never let the end of your suture string drag over the table.

Always give the end of the suture to the first assistant when you give the surgeon the threaded needle.

Always have another suture ready just like the one used.

Never change the size of the needle unless the surgeon asks you to do so.

In threading a curved needle with its eye anteroposteriorly, always thread it from the concavity to the convexity.

From the time that the surgeon makes the incision until the final dressing is applied, the nurse must be prepared to supply instantly all instruments, sutures, sponges, and salt packs called for by the surgeon or his assistant. She must keep the sponge count. She must be absolutely certain that all salt packs are out before the peritoneum is closed. She should, as a matter of routine, notify the surgeon when he begins to close as to the number of packs to be accounted for or state that all packs are out.

The dressing is applied immediately after the closure of the incision. Blood stains are removed with sterile wet packs. The dressing consists of gauze folded so as to make twelve thicknesses or layers and is held in place by long strips of adhesive.

The patient is now transferred to the stretcher, wrapped in several blankets, and taken to his room and put into a bed which has been properly warmed. The anesthetist and the assistant surgeon always accompany the patient to his room. Before leaving the patient they are sure of his condition and if necessary give orders to the nurse taking charge of the case as to the proper procedure for each particular case.

COURTYARD OF THE HOSPITAL OF JESUS AT MEXICO CITY, MEXICO.

THE FOUNDER OF THE AMERICAN RED CROSS.

This portrait of Clara Barton was painted in 1844 by Henry Inman, a Philadelphia and New York artist of wide reputation. The picture will be exhibited for the first time publicly among the 164 portraits of the Thomas B. Clarke collection which has been lent to the new $13,000,000 Museum of Art in Philadelphia for its inaugural exhibition March 26th.

Hospital Construction Procedure

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AN article in *The Heating and Ventilating Magazine* for February, 1928, gives a reprint of the *Architectural Forum* survey of building construction for 1928. The total value of new buildings projected for the year is $4,955,266,000, of which enormous total, the hospital construction will take $306,283,000. This is perhaps the largest total building budget in American history, and in the hospital field, exceeds all others. Of the total construction of nearly five billion dollars, all but one-half billion will be designed and supervised by architects, and this is almost exclusively correct with regard to hospital construction. The nonarchitectural planning and supervision is largely confined to industrial buildings and small dwellings. This, of course, indicates at once the responsibility of the architectural profession, and to the hospital administrator, the extent and nature of his own particular responsibility. Inasmuch as hospital funds are very largely matters of public trust or contribution, their proper disposition through efficient professional channels is one of the major responsibilities of the hospital executive. The selection of and proper relation with the hospital architect becomes, therefore, an important issue in the career of the hospital executive.

Approach to the Project

The proper approach to a hospital building project requires not only a knowledge of the general and particular needs of the hospital in question, but some

familiarity with recognized ethics and procedure of the architectural profession and the building trades. It is important for the hospital executive to proceed rightly and in good order toward the creation of his hospital designs and specifications, and from these to the completed building. To do this, he must not only be able to select a competent architect, but to work competently and harmoniously with that architect and with the building trades under his supervision.

The first step in the building project, after the legal incorporation of the hospital, a thorough hospital survey, and the selection of the superintendent, is the formation of a building committee. This should not be a mere figurehead group, but should be composed of earnest qualified advisers who will assist the superintendent with technical opinions on problems of construction, equipment, finance, and law. These assistants should take an *active* part in the formulation of the building program, in the selection of the architect, and in the conferences leading to the development of the plans.

Selecting the Architect

The selection of the architect is perhaps the vital step of the whole project. *Local influences, friendships, or favoritism should be ruled out here, for as in few other classes of construction, the hospital is a complex and rapidly advancing technical problem.* The architect should be a recognized practitioner of good standing in his profession, and preferably, of considerable experience in hospital construction. Oftentimes, an architect excellent in dwelling, church, or school design is given a hospital commission with less than desirable results. If it is necessary for local reasons that an architect inexperienced in hospital work be given the commission, it is highly advisable that he be assisted by an associate architect who is a hospital consultant. The local architect will thus have the honor and prestige of the work, but be guided and guarded by the associate who is more experienced in the special problems of hospital construction.

All Should Cooperate

The problems of planning and equipment in the new hospital project should be worked out jointly and progressively from first conferences by the superintendent of the hospital, the architect, and the hospital equipment engineer, all of these advised in turn by heads of departments in the existing or proposed institution. These original conferences and preliminary sketches are often considered matter of course and not made matter of record. Actual experience, however, indicates that the value of the completed job frequently depends upon notes, corrections, and suggestions in the original conferences.

Make Specifications Definite

An extremely important point in the completion of documents preparatory to actual contract is the specifications. Success in the field may depend, and often does depend, far more upon the specifications than upon the plans which are mere indications and are supplemented and defined by the specifications. These latter should, therefore, be studied very thoroughly by the building committee, and especially by the superintendent. They are often the last resort in the court for determining proper performance of the contract. They should be clear, orderly, concise, and above all, definite, with no vague or ambiguous phraseology leaving loopholes of interpretation. The superintendent should know that the specifications say exactly what kind of materials, what kind of workmanship, and what kind of guaranties are going into the completed project.

Selecting the Contractor

The selection of the general contractor ranks next to the selection of the architect in importance. Here again the superintendent often faces hidden influences and powerful groups in favor of certain individuals. *An impartial, clear policy of no favoritism whatsoever should be adopted and firmly adhered to. The list of invited bidders should be gone over with great care by the building committee and no one invited who has not the fullest confidence of the committee as to his ability and purpose to perform under the contract.* The bidding should be formal, open, and definite, with an award made promptly, upon not only figures but ability, time element, and guaranties. In this connection, it is interesting to note that in Switzerland it is customary to award to that bidder who is closest to the *average* of all bids and not, as in America, to the lowest bidder. *The lowest bidder may or may not be the best contractor for the job.*

Standard Documents for Contract

After award, the contract documents should be drawn up with great care by the architect, assisted by the legal member of the building committee, and then approved by the committee. The standard documents of the American Institute of Architects constitute an excellent model for the usual general or special contract in America, inasmuch as they are the result of many years' study by competent architects and legal counsel. If the provisions of these standard documents are carefully observed, the owner will have a contract of tested legal strength and completeness.

Supervision vs. Superintendence

Actual construction should be supervised regularly by the architect. Here it is important to distinguish between architectural supervision and architectural superintendence. The usual architectural fee presumes supervision only, which means sufficient visits to the works by the architect to assure, in his judgment, proper performance by the contractor. Superintendence, however, is a daily and hourly inspection and control of the work by a specially appointed employee of the architect known as "clerk of the works," whose salary is added to the architect's fee and charged to the owner. Extremely important in either supervision or superintendence is an accurate, daily progress record by the architect or clerk of works, constituting a legal record in case of suit. The building committee should follow through the architect's supervision with great care, but should scrupulously avoid issuing any instructions to the contractor or his assistants except by written in-

structions through the architect. A "progress schedule," in which the interrelated sections of work are charted and held to performance by the architect, is an excellent supplement to the daily record.

Making Payments

Upon completion of the work, a very careful general inspection should be made by the building committee with the architect before final payments. The payment of moneys to the contractor at any time should be made on proper certificate, issued by the architect, and all payment made through him. Particular care should be given to the matter of possible mechanics' liens, and clearances insisted upon from special contractors, materials men, and the general contractor, at each monthly payment, inasmuch as these liens may lay secretly against the property if not carefully checked at times of payment. These are responsibilities of the architect, but should be also guarded by the superintendent.

In order to visualize proper procedure, the author submits herewith a tabulation of the same, covering the principal points involved in a hospital project from inception to completion. It is thought that this tabulation will be helpful to the hospital executive in his approach to the building problem.

Summary of Procedure

1. **Organization** of the board of control and appointment of officers.
2. **Incorporation** under a formal charter, with or without the benefit and exemption flowing from a **charity**.
3. The procedure of the **construction plan:**
   a. The **hospital survey,** to determine the proper size, type, and equipment of the hospital.
   b. **Selection of the architect,** by
      I. Professional training, education, degrees, license, etc.
      II. Professional standing (American Institute of Architects), local societies, etc.
      III. Professional record in previous **hospital** construction.
   c. The **contract** between **owner** and **architect:** a formal, written contract, covering:
      I. Fees, relations, duties, ownership of plans.
      II. Supervision, superintendence, or both.
4. The procedure of **project finance:**
   a. Financed by endowment, public subscription, or state subsidy.
   b. Financed by stock or bond issues, mortgages, or notes.
      Note: In the case of stock or bond issues, the finance operation may have to await completion of plans, specifications, and estimates, to secure approval of underwriters.
5. Procedure of the **construction contract proper:**
   a. Development of working plans and specifications.
   b. Formulation of preliminary estimates.
   c. Invitation to bid, based upon investigation of bidders as to:
      I. Financial responsibility.
      II. Equipment and organization.
      III. Record of previous work done.
   d. Bid procedure:
      I. Formal invitation issued by architect.
      II. Formal proposals received by architect.
      III. Formal opening of bids, by owner and architect, bidders present.
      IV. Notice of award to successful bidder.
6. Procedure of execution of **contract documents:**
   a. Selection of the form of contract:
      I. Lump-sum contract—usual form.
      II. Cost-plus contract—dangerous.
      III. Cost-plus-fixed-fee contract—useful for incomplete or unsettled plans.
      IV. Force-account contract.
      Note: The type of contract will affect proposals, bids, and actual contract documents. It is preferable to have type of contract definitely settled before invitation of proposals.
   b. Actual preparation and execution of contract documents:
      I. The agreement proper (American Institute of Architects).
      II. The plans and specifications, working drawings complete and checked by owner, architect, and contractor. Preferably signed by all three.
      III. The construction bond or agreement to file suitable bond within five or ten days.
      Note: Bond may be for performance only, or for performance and maintenance, and either corporate or surety personal, preferably corporate, for 100 per cent of contract.
   c. The following danger points in contracts should be checked by owner, architect, and legal counsel:
      I. Legal competency of signers and signatures.
      II. The terms of contract, or legally, the "considerations."
      III. The time limit and liquidated damages clauses.
      IV. Respective relations of owner, architect, and contractor.
      V. Bonds and guarantees.
      VI. Exact number of payments, with protection against liens and assignments.
      Note: These items are thoroughly covered by the general conditions of the standard documents plus execution by architect under competent legal counsel.
7. Procedure of the **building operation:**
   a. Filing of cost schedules, construction bonds, compensation and public liability insurance by contractor with architect. Filing of builder's risk fire insurance by owner with architect.
   b. Permits and licenses taken out by owner or contractor.
   c. Construction of protection fences, overhead guards, etc., in compliance with law.
   d. Selection and approval of contractors, superintendent, and subcontractors, by owner and architect.
   e. Construction office, storage shed, telephone, light and water connections.
   f. Delivery of working drawings and specifications to job with follow-up on all shop drawings and details by architect.
   g. Delivery of contractor's equipment and materials.
   h. Daily written record by architect or architect's superintendent, or by clerk of works paid by owner of all operations, weather, orders, omissions, changes, extras, plus weekly progress report to owner and architect.
   i. Payments to contractor:
      I. Written **applications,** through architect, supported by receipts and lien releases for each partial payment.
      II. Inspection and approval of work and of applications, and certifications of same by architect to owner.
      III. Payment by owner only through architect who takes formal receipts from contractor supported with subreceipts.
   j. Payments withheld, on account of:
      I. Defects not remedied.
      II. Claims filed or evidence of probable filing (liens).
      III. Failure to pay subcontractors or materials men (protests).
      IV. Doubt of completion within time limit (liquidated damages).
   k. Prompt record and adjustment of damages and claims on either side.
   l. Assignment of contract, funds, or claims only by written agreement between all parties.
   m. Daily record of delivery of contractor's materials, inspection of same.
   n. Daily record of orders and deliveries of materials and equipment to be furnished by the owner (affecting time clause of contract).

o. Progress records of contracts independent from general contract.
p. Record of acceptance inspections, tests, and corrections.
q. Final clean-up of work and premises.
r. Final inspection of building by owner, architect, and contractor.
s. Final payment and release of contractor.
t. Filing of all contract papers, records, releases, etc.
u. Final payment and release of architect.

Important Notes on Specifications

I. Specifications are of **extreme** importance as determining the quality of **labor** and **materials**. The **plans** are intended only as diagrams, and should **not** be specifications.

II. Specifications should be **definite**, written for the **particular** job, not **copied**, and written while the **plans** are being developed. Each specification can be devised from standard sections for each class of work, but carefully modified for this particular job.
Avoid such **vague or ambiguous terms** as:
"The owner will designate style."
"The architect may direct."
"The number of fixtures will be designated by architect."
Specifications **not clear** increase loss of work and lead to lawsuits.

III. Forms of Specification: Pamphlet, brief, booklet (printed).
Physical make-up: Cover, photographs, copyright, proposal from A.I.A., contract bond form A.I.A., the contract form A.I.A., the **general condition**, the **specification proper**, signature clause—signature of contractor. (This is for office record.)
For field use, bind only: The general condition A.I.A., the specifications, proper.

IV. Schedule of materials—helpful in making accurate bids.

V. The quantity survey system (Schedule of materials, schedule of labor units, units and total supplied by contractor).

VI. Standard specifications. These are invaluable for guiding the architects specifications—not too long and complex.

VII. City codes. (To be check on progress of specifications).

VIII. Conferences on Specifications. (**Made of Record.**)

N. B.—The problems of hospital planning, construction, and procedure will be given serious attention at the forthcoming Hospital Clinical Congress of North America in Section XI, devoted to hospital architecture and engineering. In this section, which will be held in the main auditorium, prominent hospital architects will discuss present tendencies and practice in their field, and it is thought that these discussions will present matters of great interest to hospital executives.

Administration of Hospital Finance

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MUCH has been said and considerable has been written about the administration of hospital finance. At the recent hospital conventions and sectional meetings, very much attention has been given to these problems. We trust that these efforts have done some good, but we fear that they have accomplished little.

The necessity for an organized program of finances is conceded by every hospital executive. The existence and operation of such a plan is found in but few hospitals. In a recent situation, involving a hospital of 350 beds, conservatively valued at $1,500,000, a single-entry set of books was the means by which the financial information was recorded; the function of purchasing was delegated to each department head; the executive, responsible for payment of bills, rarely knew the extent of the accounts payable until the tenth of the succeeding month; no departmental expense figures were kept; by what seemed a complicated system of records, it was possible to produce a statement of income and expense, but it was impossible to develop from the records a statement of condition or balance sheet. The daily report to the superintendent showed only the number of patients.

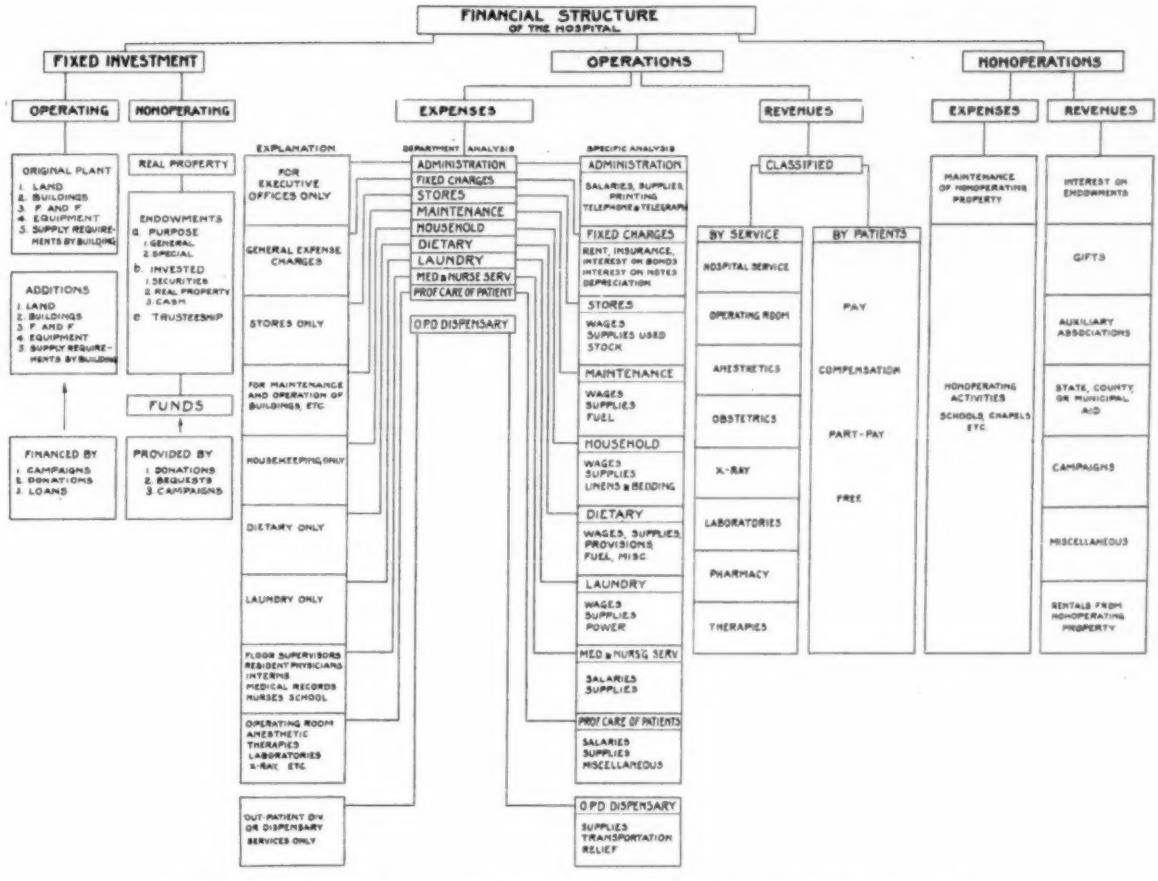
This instance may be an isolated and extreme case, but in a measure, it represents undoubtedly the condition existing in quite a number of hospitals. It has been said, by reliable and successful hospital administrators, that management expense comprises 60 per cent of the total hospital expense. If that is a fact, and we have every reason to believe so, some plan should be recognized as basically correct. In the accompanying chart, we are submitting, for your consideration, a diagram of the fundamental financial structure of the hospital.

This analysis reflects three considerations: the fixed investment; operations; non-operations. Under the fixed investment is found the further distinction between operating property and non-operating property. Reference to the chart makes this self-explanatory.

In the second section, you will find operations set forth in terms of expenses and revenues. Expenses are set up by departments, with a suggested list of the prevailing items of expense by departments. Revenues are set up under two possible classifications. The patient classification seems the correct one, though many use the service classification. The non-operation section, like the operations section, shows expenses and revenues. In most instances no attention is paid to the segregation of such items from regular operating considerations. It seems, if reliable and accurate cost figures are to be obtained, if hospital operating deficits are to be shown accurately, that this distinction must be observed.

Apply this analysis to your own hospital. There may be some divisions in it not included as part of your organization. It is intended to be a basic chart adaptable to any hospital. After applying it, make the segregations indicated by it. I am sure you will find the financial picture developed, an interesting and, without question, a valuable and accurate statement of your condition.

In order to obtain the best results in management, this procedure is unquestionably the only one. To de-



PLAN OF THE FINANCIAL STRUCTURE OF THE HOSPITAL, PREPARED BY M. R. KNEIFL, B.S.

velop the information necessary for efficient management, correct and scientific accounting principles must be observed. It may be difficult for the person not familiar with such matters to proceed and obtain results. This condition exists and, in an effort to satisfy the need, the College of Hospital Administration of Marquette University offers courses of study in this subject and other administration subjects. At this time, the College of Hospital Administration, through its faculty, is offering its services to the hospitals in the interest of good hospital accounting procedure. Your inquiries, your problems are invited. There is no obligation incurred.

At the 1927 convention of the Catholic Hospital Association, more interest and attention was given to the administration section than to any other. Consequently, the program for the administration section at the next convention to be held in Cincinnati, Ohio, June 18 to 22, 1928, inclusive, carries more interesting features than heretofore. The problem of the administration of finance is to receive a very intensive treatment.

JUNIOR STUDENTS, ST. FRANCIS HOSPITAL, PITTSBURGH, PA.
—Photo by Amstrong.

The Budget: A Necessity in Efficient Administration[1]

John A. McNamara, Executive Editor, "The Modern Hospital"

CLOSE to the hearts of the hospital administrators of the country is undoubtedly the proper financing of their institutions and the application of business methods to a nonprofit-making business, yet a business that is greater than all the others because human life is the commodity in which it deals. With the incentive of making and keeping money, industry has developed many excellent ideas and among them the budget. The governments of the various communities first adopted budget making in a hard-and-fast rule that certain appropriations should be made for the administering of certain departments during the forthcoming year and that come what may these allotments could not be overdrawn. You may rest assured that the politicians never thought of underdrawing an appropriation.

Big industry then saw the success that the cities were obtaining with the budget system and it was inaugurated generally in business just following the war when retrenchment and economy were foremost in the minds of the industrial leaders of the country. Not quite so hard and fast were the rules laid down for business budgets but department heads were given to understand that overdrawing their allotment indicated to the stockholders poor management whereas underdrawing was perhaps a sign of equally poor management, but less offensive to those whose money they were spending.

That money could be saved by a budget system, that business became more of a certainty and less of a speculation, and that hazardous guesswork was removed by definite allotments for certain expenditures, became self-evident and astute hospital superintendents were not long in taking the matter to their respective boards for discussion and in this way budgets in hospitals became as common as the admission of patients and as routine as record taking.

What is a Budget?

The budget is simply fitting your pattern to your cloth; it becomes the appropriation of certain set expenditures to the estimated income during the year prepared for. If the previous year has shown that your income was $100,000, it is perfectly reasonable to expect that your income for the ensuing year will be a like amount, provided the $100,000 was not in the form of endowments, contributions, or some other unnatural condition. In other words, the $100,000 must be earned income plus income from already existing endowments, city appropriations, and amount to be expected from community chests and other fixed sources. By reference to your previous expenditure it becomes an easy matter to find out how much each department spent during the previous year. If this expenditure totaled $100,000 the whole task resolves itself into a simple matter of division. However, a proper analysis of the expenditures by departments may reveal some unwise and uneconomic expenditures which were made in one department and unnecessary and injudicious economies practiced in another and by the budget system you have entire control and can correct this condition that otherwise might go on for years. In other words, by the budget system, justice to each department is more easily administered, yet the grand total of expenditures remains the same.

Estimates by Department Heads

It is strongly advised by those who have made a study of the budget system in hospitals that department heads be allowed to make up their own budgets each year and submit them to the superintendent for approval rather than that each should be handed an arbitrary statement of appropriation. If the department head makes up her own budget she will immediately take additional pride in the matter and will see to it that she keeps well within the budget in order to show efficient management of her department. It has been the practice in some hospitals to arrange also a contingency fund to cover possible deficits arising in departments but this has been found to be poor policy, as department heads often feel that it does not matter if they exceed their appropriation because it can always be taken care of from this contingency fund.

The division of the total budget by departments is a matter for decision by the superintendent and the board of trustees. Some hospitals have as many as 25 different divisions, but the average hospital should find 15 divisions sufficient and the budget will work much better with the smaller number of departments than with too many subdivisions.

As an example of the proper subdivisions, I will give you herewith the recapitulation for Mount Sinai Hospital, Cleveland: In the hospital proper comes administrative, housekeeping, laundry, linen and sewing room, heat, light and power, maintenance and repair, dietary, commissary, library and medical records, medical and surgical, anesthesia, X-ray, laboratories, nursing, training school, housing of personnel, social service. In the outpatient department are the following subdivisions: Administrative, social service, medical and nursing service, orthopedics and massage, dental, eye, night clinic, prenatal.

These subdivisions have been made carefully and with considerable thought and before the appropriation has been determined, has come the listing of salaries paid to each department, by departments. For instance, under laundry come the salaries for the head laundry man, a washman and thirteen laundry assistants. Under dietary come twenty-eight different classifications from the dietitian down through cooks, maids, porters, bus boys, cart girls, and finally to the cleaner.

[1]Read at the seventh annual conference and first institute of the Buffalo diocese hospitals, Sept. 29-30, 1927, at the Sisters' Hospital, Buffalo, N. Y.

In the kitchen budget itself, besides the salaries paid, come these general classifications: Food, gas and electricity, kitchen equipment, china and dining-room equipment, tray covers, napkins, and miscellaneous. Food is again divided into five general classifications as follows: Meat and fish, milk and cream, butter and eggs, groceries and bread, and fruit and vegetables.

It must be understood, however, that these departments and subdivisions are by no means set standards. Each superintendent must figure out for herself how the budget is to be divided. There is a divergence of opinion on several of the headings, for instance, many list pharmacy separately while there are others who prefer to consider the pharmacy as part of the medical service. Laboratories are sometimes divided into biochemical laboratories, research laboratories, and pathological laboratories, and there are other divisions which are entirely individual problems. Shall the emergency room come under a separate classification, or shall it be part of the medical service? Do ambulances and garages properly come under maintenance and repair? All of these questions are for the budget maker to decide.

Inspection and Inventory

One matter for decision is the purchase of new equipment and the replacement of worn-out apparatus. It is possible to look ahead a year and to provide for these items instead of suddenly finding out that something new is needed during some month of the year. It should be just as easy to estimate for new equipment as for the other expenses, and in fact, it would prove an excellent idea if the equipment of all departments were systematically inspected at least once a year with a view either to replace or repair before its condition becomes so bad that it suddenly gives out. The prudent ambulance driver looks over his ambulance much oftener than once a year to see that all parts are in working order and to ascertain what parts should be replaced before an unexpected breakdown is caused when the ambulance is most needed.

Along with budgets and their making comes the subject of inventory and control. The perpetual inventory, the daily check upon expenses and income and the monthly tabulation of each department's expenses, are perhaps the basic factors for the proper and efficient administration of hospitals. If by the budget system the dietary department is allowed an expenditure of $8,000 a month and it is found at the end of any one month that the expenditure has mounted to $12,000, it is perfectly evident that something has gone wrong and investigation can be made when it will do good instead of waiting until the end of the year when it will then be found that the budget has been exceeded by 50 per cent and there is no chance of correcting this condition. In other words, the budget plus the perpetual inventory and daily report give the superintendent a perfect check and free the hospital from any suspicion of inefficiency.

Cost of Service Checked

In this day the superintendent should take aggressive measures against any possible discrepancy whereby any one can claim that the hospital is mismanaged. Too many statements have been made during the past two years by people who were in no position to know, that hospitals were inefficiently run and that patients were being charged exorbitantly. It has been asserted that the cost of hospitalization is so high that the person of moderate means cannot afford to go to hospitals, but this statement is absolutely without foundation. Frank E. Chapman, in collaboration with *The Modern Hospital,* made a study of conditions in the United States among hospitals that were general in nature, that took pay patients, and that paid to their executives full salaries. This eliminated among other groups, Catholic hospitals because to make the study of institutions of any value we felt first that all hospitals must be comparable as to expenses, and second, because we

ST. JOHN'S HOSPITAL, TULSA, OKLA.

St. John's Hospital, Tulsa, Okla., was opened two years ago, with the fourth and fifth floors unfinished. Insistent demand for more space has brought about the completion of the building. The new fifth floor houses operating rooms, laboratories, plaster-cast and bone rooms, X-ray room, etc.

further felt that the Catholic hospitals of the country were most honestly and efficiently managed and that the criticism that had been made had not been leveled at them to the same extent that it had at the other hospitals of the country. However, it would be interesting to make the same study among Catholic hospitals.

We first found out from 125 hospitals what the cost of operation was in 1913 and the charges to all classes of patients. We then found out what the charges to patients were in 1913 and what they are today and made our comparison. The charges have not kept pace with the costs and in many instances the charges have increased no more than half. At the Presbyterian Hospital, Chicago, the costs have increased 135 per cent, whereas the charges to patients have increased only 66 per cent. Added facilities and more comfort have resulted and the death rate has been steadily decreasing as years go by. Another point to be mentioned is the fact that the average stay of the patient has been very materially lessened, while his comfort in the hospital and his chances of recovery have been greatly increased. I recently received from *Hotel Management,* the authentic magazine in that field, the interesting report that room rates in hotels have increased 135 per cent as compared with 1914, while expenses have increased approximately 180 per cent. In your best Buffalo hotel you can get a very good room and bath for $5 a day. This is a little below the average charge at this hotel. Your meals will cost you an average of $3, your tips will run about $1, and there is no nursing service included. You are paying $9 a day, and if you need a nurse the charge would be the regulation private nurse's charge of from $7 a day to $14 for 24-hour duty. So to make the comparison it is necessary to say that the hotel will give you an average room, bath, board, domestic service, and nursing service for $23 a day and take a most indifferent interest in your welfare and recovery as against the highest price you can possibly charge a patient in your hospital, which will probably average not more than a third of this amount, certainly not as high as half the amount.

If you leave the hotel without paying your bill you will be brought before the criminal court for trying to defraud an innkeeper, whereas there is no law that will prevent any patient from walking out of your institution day or night and paying at his leisure if at all. If you attempted to prosecute criminally you would be branded as heartless and cruel by those same people who are today claiming that your prices are exorbitant. This, while quite remote from the subject of budgets, brings me to the matter of collecting bills from patients, and I want to recite to you what is being done with much success at the Toledo City Hospital.

Collecting Bills

When a patient has owed the hospital for a long time and the superintendent is about to relegate the account to his accounting morgue, he sends his assistant to the former patient, and as gently as possible gets the man first to admit the debt and then to agree to pay the hospital $2 a week until the full account is paid. This agreed upon, the next step is to point out to him that it is a hardship for him to come each Saturday to the hospital with the money and it is a further hardship on the hospital which has waited patiently some months to take the money in such small amounts and it is suggested to him that a more satisfactory way for both parties is for the patient to get a loan from the Morris Plan Bank with the hospital itself acting as cosigner of the note. It has been found that the man is usually willing to do this and to pay each week to the Morris Plan Bank the $2 until the full debt is paid. Some of them have objected to paying interest charges and when this is the case the hospital agrees to pay the interest for the patient. The Toledo Hospital, in the short period of three months, added to its revenue in this way approximately $4,000 that it had never expected to get. A fund of $500 has been set up to meet any possible defaults whereby the hospital will have to pay the Morris Plan Bank for the patient but it has been used but twice so far and both of the amounts were exceedingly small.

So to connect up the loose ends of this paper, may I conclude by stating that proper vigilance of collection and management methods plus the adoption of a budget whereby guesswork is taken out of expenditures will result in efficient administration, better-run institutions, better care for the patients in your hospitals, smaller deficits, and more money for research into disease.

ST. ROSE HOSPITAL AND NURSING SCHOOL, GREAT BEND, KANS.

The Results of Hospital Standardization[1]

Some Requirement and the Extent of Their Adoption

Philip Hillkowitz, M.D., Denver, Colo.

IT is not more than eight years since the American College of Surgeons enunciated the now famous minimum standard of requirements and launched a campaign for the betterment of institutions for the sick. The Rocky Mountain region early swung into line on the heel of this movement and for the past five years the great majority of our hospitals have been recognized as meriting the approval of the College of Surgeons. In the half decade that has passed, many changes have taken place in the conduct of our institutions as an outcome of standardization. It will not be amiss, therefore, to make a survey of the results accomplished and of the hindrances that still lie in our path to attain the goal.

It is universally admitted that this endeavor to place the hospitals of this country on a scientific basis marks an epochal revolution in the methods of taking care of the sick and denotes a decided advance in this important social function. Prior to the inauguration of the standardization program, hospitals were more or less on the level of boarding houses. Now, with the advent of the clinical and X-ray laboratory, the maintenance of records, and frequent staff meetings, these institutions have assumed the dignity of a learned profession, utilizing all the achievements of science to further the ends of healing the sick.

It was not to be expected that the millennium would dawn in the comparatively short space of time since the movement was inaugurated. There are many gaps to be filled, many defects to be remedied. Some reforms can be gained only by patiently waiting for the inevitable passage of time and the advent of a new generation.

Requirements for Standardization

Let us look a little more closely into the several factors that enter into the making of a so-called standardized hospital as codified in the famous charter—"The Minimum Requirements of a Standardized Hospital."

The question of fee splitting is of concern to the hospital proper, insofar as the practice tends to reflect unfavorably on the quality of surgery performed and to lower the moral tone of the staff members. While this evil in many parts of the country is not entirely eradicated, it is gratifying to note that, so far as Colorado and the adjoining states are concerned, division of fees openly or clandestinely is practically unknown.

Periodic staff meetings in the hospitals of this region have been held regularly but the attendance has not always been up to the requirements. Some institutions have had interesting and profitable meetings; in others the meetings have been lacking in enthusiasm. Some hospitals have a standing committee which carefully prepares a scientific program in advance; in others the members trust to luck or call the roll for case reports.

Monthly Reports Important

Not enough attention is paid at these meetings to the monthly analysis of service which is usually read by the secretary in a humdrum manner and is received much like a recital of figures in a time table. Few staff members appreciate the pains and trouble of compiling these valuable statistics, as is evidenced by the general lack of discussion on this important feature of hospital standardization. It was originally intended that the monthly summary should evoke a close scrutiny of the medical and surgical work of the institution, and a frank and free exchange of opinion among the staff members. While this sounds well in theory, human nature is such that physicians are loath to express themselves when there is question of the work of a colleague, lest their criticisms be not taken in the right spirit. Thus, where an operation was performed when not indicated, or a medical case was improperly handled, it has been found difficult to have the executive committee confer with the surgeon or physician in question, and call attention to his error. In some hospitals the expedient is employed of writing the erring brother to report the case at the staff meeting and, after the manner of the candidates for degrees in olden times, to defend his thesis against his critics. This drastic remedy has often had a salutary and educational effect. At times the remedy is of doubtful value, for the invitation to appear is declined.

Fortunately such cases are rare. The number of poorly prepared surgeons is growing smaller and smaller. It is futile to expect hospitals to discharge men from their staffs for incompetence after years of service. All we can hope for is the training of a new and better generation. To return to the question of staff meetings, more attention should be given to the monthly summary and an efficient program committee should be selected to arouse interest in the meeting. For the scientific program it is better to have few but carefully prepared case reports or presentations rather than many ill digested, tiresome readings of poorly written records. The responsibility for the success of the staff meetings, of course, rests entirely on the personnel of the staff and not on the hospital authorities.

Records Require Cooperation

Not so with the next item in the standardization program—namely, records. This is one of the knottiest problems in hospital management and one which requires the cooperation of the doctor, the intern, the nurse, and the governing body of the institution. Considerable progress has been made in this direction.

[1]Read at the meeting of the Colorado Conference of the Catholic Hospital Association.

Standard blanks are now available which greatly facilitate the maintenance of proper case records. Unfortunately they are not automatic but depend on the human element, in this case, the attending physician. How to get the busy practitioner to write or dictate his findings is a question still open for solution.

Improvements have taken place in the operative records. The larger hospitals employ a stenographer who buttonholes the surgeon before he leaves and cajoles him into dictating the data required, often in meager details. We are beginning to get preoperative diagnoses, really made *before* the operation. The histories, the physical findings, sad to relate, are still in a primitive state. There are exceptions, of course, but they only prove the rule.

Some clinicians who are very conscientious have copies of the hospital blanks in their offices and bring back a nicely typewritten history. But the majority are apathetic and leave it to the interns with whom it is at times a mechanical drudgery. Their accounts are not always checked up by the attending physician nor by the chart committee if there be one, or if it functions. As a result a perusal of the histories and physical examinations would find our hospitals obeying the law in letter but too often not in spirit. Consultations and the findings of the consultant are not recorded and this reflects unjustly on the hospital in the monthly summary.

A plea may be made here for more autopsies. The best index of scientific work in a hospital is the ratio of autopsies to deaths. A word to the relatives from the attending physician or encouragement from the Sister, nurse, or superintendent, a nod of approval from the priest or minister will overcome the barrier of resistance. The laity is becoming educated to the humanitarian aspects of autopsies in the information they give for the prevention and treatment of disease. A tactful handling of the situation will greatly help the endeavor to obtain autopsies. At present the percentage is woefully low and not in keeping with the good clinical work done in the hospitals.

While the profession has been somewhat remiss in helping with the records, it must be acknowledged that the recordkeepers in the institutions have performed their functions very creditably. The tabulation and classification have been done conscientiously and, taking into consideration the fact that these historians are recruited from the laity, the results are quite gratifying. The recordkeepers have worked against odds without sufficient help or appreciation from the physicians.

Laboratory Experts Needed

The last factor to be considered in the hospital scheme is that of the clinical and X-ray laboratories. These aids to diagnosis and treatment are now an indispensable adjunct to a modern hospital but, as is the case with records they are dependent entirely on the human element. It is not enough, however, that we have trained technicians in these departments. The clinician demands a correct interpretation of the laboratory findings. This information can be furnished only by a physician specializing in clinical pathology or roentgenology. A rich laboratory equipment, with expensive apparatus, will be as ineffective without him as the most handsome operating room and the best trained crew would be without the surgeon.

The clinical pathologist, in his daily consultation with the clinician can be of incalculable service in suggesting useful laboratory procedures and in evaluating properly the laboratory findings. In tissue examinations particularly, his responsibilities are great and his judgment is of vital importance to the patient.

A problem of concern to the hospitals in the smaller communities is the lack of a clinical pathologist to supervise the work of the technician and to carry on the examination of tissue removed at operations. One remedy found effective is to engage the services of a pathologist in the larger medical centers to make periodic visits to the smaller institutions and perform the same duties as he would in a large hospital. Not unlike the old-time circuit-riding preacher, he will spread his gospel in his territory. Such a peripatetic pathologist will stimulate the scientific activity of less favorably situated hospitals.

Conclusion

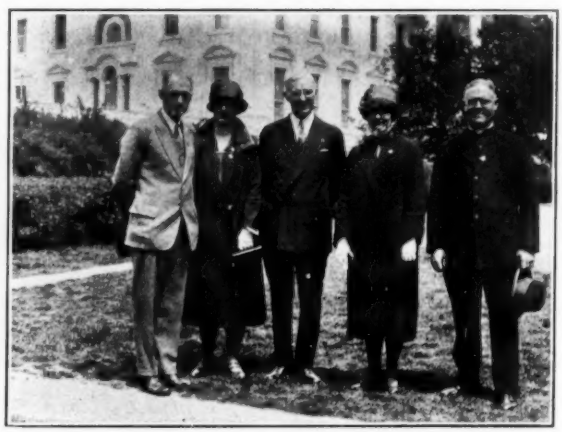
I have pointed out briefly some defects in our hospital standardization scheme, not in the spirit of captious criticism, but with the purpose of suggesting needed reforms. I am well aware that standardization has not been in practice long enough for us to expect better results, and on the whole I am optimistic as to the outcome and encouraged by the results obtained. If the shortcomings above outlined will incite the staff, and the hospital administrations to a more active endeavor to raise our standards the object of my humble efforts will have been amply achieved.

Poor Fish

A man in a hospital for mental cases sat fishing over a flower bed. A visitor approached, and, wishing to be affable, remarked:

"How many have you caught?"

"You're the ninth," was the reply.



1927 COMMITTEE ON NATIONAL HOSPITAL DAY AT THE WHITE HOUSE.

Sidelights on the Powers of Sunlight

The Clinical Application of Solar Radiations

Bernard Langdon Wyatt, M.D., President, Board of Directors, The Desert Sanatorium of Southern Arizona, Inc., Tucson, Ariz.

IN the 1923 Oxford Edition of "Heliotherapy" by Rollier the following statements appear:

"This book would be incomplete if so important a subject as pulmonary tuberculosis were to be ignored; to treat it adequately is beyond our power as our experience has been almost entirely confined to the surgical manifestations of the disease. We have, of course, had occasion to treat large numbers of patients who presented active pulmonary as well as surgical lesions (about 20 per cent of all cases), but hesitate to draw conclusions from them as they can hardly be considered as typical cases of pulmonary tuberculosis."

"It has been stated that heliotherapy is liable to produce haemoptysis and foci of congestion in the lung; although perfectly true that these results may be produced by prolonged exposure to sunlight, especially in hot, thundery weather, such accidents are easily avoidable if proper attention be given to technic. We have frequently found that with patients subject to haemoptysis, a carefully controlled course of sun baths, far from increasing this tendency, caused it to disappear."

"Properly applied, I am convinced that heliotherapy would be a useful factor in the treatment of the great majority of cases of pulmonary tuberculosis."

Medical literature, both in this country and abroad, reflects a marked difference of opinion about the *actual results* of heliotherapy in pulmonary tuberculosis, but most of the data in favor of direct solarizations leaves much to be desired when subjected to careful study and analysis. Either the number of cases was too small for sound conclusions to be drawn or details as to the rate or nature of the progress were lacking. In a number of instances it was obvious that no distinction was made between *climatic rest-cure,* which is one thing, and *direct solar radiations* which are something quite different.

As a matter of fact, sunlight, which was formerly used in Switzerland rather extensively in the treatment of pulmonary tuberculosis, has been given up almost completely and Jacquerod, who had over six years' experience with thousands of cases, has discarded it entirely.

During the past three years very accurate records of three hundred cases of pulmonary tuberculosis treated by either indirect or direct solar radiations have been kept by my colleagues and myself in Tucson. The greatest care as to dosage and methods of exposure was exercised and the patients represented almost every type and stage of the disease with the exception of acute or rapidly progressive cases.

The vast majority of these patients were referred to Tucson from the northern and eastern sections of the United States; only a few had been able to take adequate rest prior to coming here and, consequently, it was always difficult and often impossible properly to evaluate the part played by climate and rest as distinct from either indirect or direct solar radiations. That elusive and yet important factor which is called the "psychology of change" also had to be taken into consideration.

It has been our endeavor to eliminate insofar as was possible "the human equation" in the analysis of our results and to study our data in a careful, critical, and open-minded manner. *In only 20 per cent of our cases did we feel justified in ascribing any direct and appreciable benefit to the combination of climatic rest-cure plus either indirect or direct solarizations and in one half of these it was our opinion that the improvement could not be attributed to heliotherapy. Of equal importance is our observation that of the 10 per cent who seemed to be benefited by heliotherapy at least one half made more satisfactory progress under indirect radiations than under direct exposures to the sun's rays.*

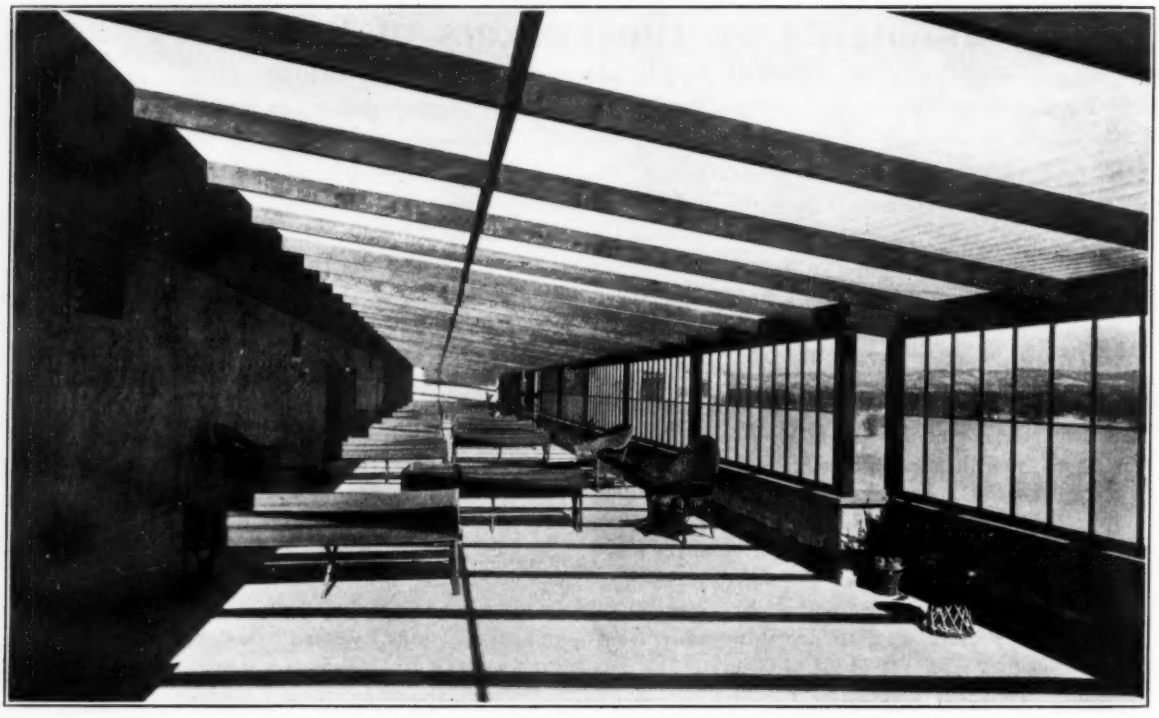
Patients with "surgical" tuberculosis who also had clinical manifestations of the pulmonary form of the disease were not included in our study for the reason that in cases of extrapulmonary involvement the pulmonary lesion is usually of a mild type which rapidly becomes quiescent.

It was not possible to discover any marked degree of uniformity in the beneficial effects produced by either indirect or direct radiations except in the matter of an increase in weight and what seemed to be a rather rapid development of fibrosis. In some instances a rebellious afternoon elevation of temperature of long standing would rapidly disappear, in others the effect was limited to an improvement in the appetite or ability to sleep. A few patients showed a rapid decrease in lung moisture but as a rule any appreciable influence on cough, expectoration, or bacilli in the sputum was not demonstrable. It did not seem to be a matter of importance whether the disease was minimal or far advanced as long as it was only mildly active. In fact, some of our best results were obtained in cavity cases with well-developed fibrosis.

It was clearly demonstrated that, under careful control, general irradiations do not tend to produce haemoptysis, but it was necessary to be constantly on the alert to keep the exposures below the point of stirring up focal reactions.

The results of solarizations in pulmonary tuberculosis not only leave much to be desired, but also the dangers of heliotherapy are such as to make this form of treatment hazardous unless carried out under expert supervision.

When the Desert Sanatorium was established one of its aims was the development of a technic for the



A SUN TERRACE FOR PATIENTS AT THE DESERT SANATORIUM, TUCSON, ARIZ.

treatment of pulmonary tuberculosis by solar radiations. Much time has been devoted to this problem and much money has been expended on scientific apparatus for measuring variations in the intensity of the rays of the sun. Our results, however, have forced upon us the conclusion that only a very small percentage of these patients may be benefited by solar therapy and that the number is so limited and the hazards of treatment are so great as to justify discontinuing the acceptance of patients suffering with the open form of pulmonary tuberculosis.

Fortunately, the results to be derived from heliotherapy in pleural tuberculosis are little short of brilliant and these patients present quite a different picture. This is also true of the effects of solarizations in tracheobronchial lymphnode disease.

Serous pleural exudates are regularly absorbed with such rapidity under general irradiations that aspiration is rarely necessary. Purulent exudates also clear up occasionally under heliotherapy, but unless absorption occurs promptly we prefer to use solarizations as an adjunct to surgical intervention.

It is generally agreed that exposures to the rays of the sun are of great value in preventing the development of intrapulmonary lesions in cases of hilum tuberculosis and it is our opinion that this will also prove to be true in connection with primary pleural involvement which heretofore has been followed by pulmonary disease in quite a large percentage of instances.

Patients with chronic bronchitis, bronchial asthma, and bronchiectasis respond well to solar therapy and the improvement in their general condition as well as the symptomatic relief which they experience is most gratifying.

The technic employed in treating patients with pleural tuberculosis, hilum tuberculosis, chronic bronchitis and bronchiectasis is the same as that presented in the article dealing with the so-called "surgical" forms of tuberculosis.

THE NAME OF ST. MARY'S

The name of St. Mary's is time honored and old,
It stands for treasures more priceless than gold.
Faith, Hope, and Charity, these beautiful three,
Compose a great part of your Rosary.

The name of St. Mary's is a harp of its own,
It rings thru' the years, with life-giving tones.
To the thousands discouraged, sin-sick and sore,
It has given the hope of life evermore.

The name of Saint Mary's may it ever resound,
And honor the Virgin that wears the crown,
Service and Loyalty the gift of his grace
May it be of such worth time cannot efface.

—A patient of St. Mary's Hospital,
Pierre, S. Dak.

KEEPING IN TOUCH WITH HOME.
Bedside telephones are among the conveniences for patients at the new Osteopathic Hospital, Jamaica Plains, Boston, Mass.
—International Newsreel Photo.

Thirteenth Annual Convention of the Catholic Hospital Association Second Annual Hospital Clinical Congress of North America Fourth Annual Convention of the International Catholic Guild of Nurses

AN EXPLANATION OF THE PROGRAM

John R. Hughes, M.D., Dean, College of Hospital Administration, Marquette University

THE Catholic Hospital Association announces its Thirteenth Annual Convention this year for the week of June 18 at Cincinnati Music Hall in Cincinnati, Ohio. At the same time, in the evening sessions, the International Catholic Guild of Nurses will hold its Fourth Annual Convention. In making these announcements we are also announcing the Second Annual Hospital Clinical Congress.

The announcement of this meeting as a convention and the addition of the title "hospital clinical congress" has a very definite purpose. The titles "convention" and "clinical congress" have been chosen with care and after much study. Both have a meaning and both carry a description of what the organization is attempting to do.

The idea of applying the principle of "clinical teaching" to hospital subjects had its origin and was first attempted last year at the First Annual Hospital linical Congress of North America, held in Milwaukee. he application of this new idea to hospital convention procedure at that time was an experiment. No one was certain that it would succeed. It was difficult. It was ew. It was a departure from customary methods; yet we went ahead with it and it did succeed. Perhaps not perfectly, yet its success was enough to demonstrate that the idea motivating it was a sound one. That idea was to give the most of hospital education to the delegates in attendance, to make that education fit the needs of all, and to make it readily available for all.

The lessons learned from that experiment are being used now in the planning of this, the Second Clinical Congress. No one in attendance at the meeting last year can doubt the great advantage that this form of teaching has over the old type of convention; no one can doubt that division of the convention into small groups for study and demonstration of hospital subjects, hospital equipment, and hospital methods, increases the value of the convention to the delegates and to the exhibitors, and greatly facilitates the work of the men and women who are doing the teaching.

Busy hospital people who leave their work for a week to come to a meeting of this sort, do so for the purpose of increasing their knowledge and for the purpose of gaining something that will help them to be more efficient in the management of their institutions. For them it is a pilgrimage in quest of greater knowledge, knowledge that will aid them in serving others. It is therefore a duty of those of us who are charged with the responsibility of the preparation of program and exhibits for these meetings, to put forth every effort to make their conventions worth while. It is a responsibility which we fully realize and which we do not take lightly.

Being convinced that some great advantages are to be derived from the old type convention, and being further convinced that other advantages can be derived from the "clinical type" of congress, we are therefore combining the two this year in an "annual convention" and "clinical congress." We are taking from each the things that we believe will be of greatest good and using them in our plan. We are eliminating the methods and procedures in each which we believe to be of the least value. This cutting down and eliminating has been done cautiously and only after much consultation and study, and we are certain that the convention this year will well repay us for our efforts and will give to delegates and exhibitors alike a value which previously has never been equaled.

The Music Hall at Cincinnati is so arranged that such a program can be conducted easily under one roof. In the same hall we will have a large theater for holding general convention meetings, for the presentation of papers on hospital subjects, for general discussions, and for business sessions; a large space for commercial exhibits of hospital equipment, and an adequate number of separate rooms for the equipment of and conducting of clinical demonstrations. Each of these divisions of our meeting will be separated from the rest in such a manner that interference and conflicts will be entirely eliminated.

The clinics will be foremost in the program arrangement. They will cover in subject matter only important and practical problems of hospital work. They will be so arranged that the entire attendance will have an opportunity to hear and see all, and so arranged that delegates will have a choice and can eliminate the things which are not of particular interest for their work. The clinics will not be too numerous and they will be repeated often enough to bring this about. They will not conflict with one another in any way. In addition to this, a few scientific papers will be delivered in general assembly meetings, and a few special conferences may be arranged for.

Many of the outstanding allied organizations have been consulted in regard to program preparation and we are assured of a quality of scientific material which we believe will be unexcelled. Clinic programs will be conducted in all hospital departments. These departments will be completely equipped and manned by outstanding specialists in the field.

It is our hope that this convention will in every

way surpass any of our previous conventions, that by it we will have permanently established the method of clinical teaching in hospital work, and that we will fulfill the obligation that we have assumed in undertaking the preparation of this program for the education of our attending delegates.

The Modern Hospital Laundry[1]

Taylor Stanley

YOU see before you a group of laundry machinery suitable for use in the laundry to take care of the requirements of a 100-bed hospital for acute diseases. This size hospital was chosen as it represents an average condition.

For the larger or smaller hospital, machinery can be based upon the requirements here shown. This is the minimum amount of machinery that we would suggest for a hospital of this size, and we are assuming that the laundry will operate for five and one half days a week and eight and one half hours a day. We will also assume that there will be one washman to take care of the washer and extractor, one press operator, two hand ironers, and four operators on the flatwork ironer. One of these operators will also look after the drying tumbler. Therefore, you can figure an average of eight people in a laundry of this size in addition to the superintendent or supervisor. We have not shown a sterilizing washer, although we manufacture a machine of this type. This is extra equipment which can be installed in hospitals handling contagious cases.

We will now start with the reception of the linens from the different wards and floors and trace their routing through the laundry process. The linens are first brought into the laundry by means of trucks or through glass-lined or metal-lined chutes. They are then placed in the 36 by 54-in. monel-metal washer, which will handle 150 pounds dry weight per load. The actual washing process, not including the loading and unloading of the machine, lasts anywhere from 35 minutes to 50 minutes, depending upon the condition of the articles to be washed. Articles stained either by blood or medicine require different treatment, which will be discussed by our codemonstrators.

After removal from the washer, the articles are placed in a truck tub and wheeled in this tub to the extractor where the surplus water is removed by means of centrifugal force. This extractor is a strongly built machine containing a heavy steel or copper perforated basket which revolves at the speed of 1,200 revolutions per minute. From 10 to 15 minutes' actual running time is required in this machine to extract or wring the articles. This size of extractor will handle 50 pounds of dry weight per load. From the extractor the articles are taken to the ironing and drying department. Bath towels and bath mats, wrappers, cotton blankets, and hosiery are taken to the drying tumbler, where they are dried in from 25 to 30 minutes' operating time. Nurses' gowns and aprons, interns' white suits, and operating gowns and articles of wearing apparel are taken to the presses and hand ironers where they are ironed ready for use. Flatwork, including bed and table linen, napkins, towels, spreads, and rags are taken to the flatwork ironer where they are ironed ready for use. The drying tumbler provides a very soft finish and, therefore, is particularly suitable for articles requiring an absorbent texture, such as bath towels, which should be dried in a loose and fluffy condition. The presses are particularly suitable for the ironing of wearing apparel and great development has taken place in their construction. The two-handed control, full-automatic press, is the latest machine available for this purpose. It has a standard pressure of five pounds per square inch and is furnished with spring padding which insures a permanent elastic ironing bed or surface. A very high capacity results from the use of this machine, one operator on two presses in connection with two hand ironers being able to produce a large quantity of excellently ironed articles every hour. The largest part of any garment can be ironed on the press, the hand ironers being used for ironing gathers and folding and touching up the articles before being returned to the clean-linen department.

The flatwork ironer here shown is a return-apron machine. This machine is a cylinder type which may be placed against a wall and the articles, after they are ironed, are returned to the feed side by means of a conveyor apron. This machine is extremely popular in a large number of the small and medium-size hospitals and institutions. There is nothing to get out of order on it, it gives an excellent finish to the goods, and is very economical in operation. We now furnish this machine with spring padding on the rolls, which makes it possible to iron certain articles of wearing apparel as well as flatwork, without the danger of breaking buttons.

In this connection, it is interesting to note that the Fifth Avenue Hospital of New York City and the Johns Hopkins Hospital of Baltimore are only two examples of a large number of hospitals in this country using the floating-roll type of flatwork ironer for the purpose of ironing wearing apparel. It has been found in the past that the hand-ironing and press departments cost more to operate than any other of the ironing or drying departments in the laundry. You can readily appreciate why the production of this department is not as large as that of the flatwork ironer and tumbler departments. Therefore, some of the progressive hospital superintendents redesigned some of the wearing apparel in use by their nurses and staff, eliminating gathers

[1]Read at the laundry clinics at the first annual Hospital Clinical Congress held at the Milwaukee Auditorium, Milwaukee, Wis., June 20-24, 1927. Mr. Stanley is an engineer representative of the American Laundry Machinery Company.

and rumes and cutting the garments straight and square. In this way these articles could be ironed on the flatwork ironer provided they were not starched, and a very satisfactory degree of ironing could be obtained. This could be supplemented by hand ironers back of the flatwork ironer, who could touch up articles requiring it before they were folded. In using this method, both of the above mentioned hospitals have been able to iron satisfactorily a large variety of wearing apparel and in this way reduce the amount of wearing apparel which had to be handled on the presses and by hand iron. Of course, there is necessarily a large quantity of this wearing apparel which must be handled on presses and by hand iron, such as starched articles, nurses' white uniforms, interns' and doctors' white coats and trousers, and similar heavy articles, also shirtwaists, men's shirts and certain articles of under clothing should be ironed on the presses. However, such articles as knitted underwear, nurses' aprons, and aprons used by the staff, kitchen, and service departments, and similar flat large pieces could be ironed very satisfactorily on the floating-roll flatwork ironer.

My company has just developed a wonderful labor-saving device in this connection, namely, spring padding for covering rolls of the flatwork ironer, and by means of this padding excellent results can be accomplished in the ironing of wearing apparel.

The steam for heating the machines is furnished by an 8 h.p. high-pressure steam boiler, which is provided through the courtesy of the Milwaukee Gas Light Company. It is also possible for us to furnish equipment heated by electricity or gas, and numerous hospitals are now employing this means of heat where there is cheap electric current available.

The washer which you see before you will easily take care of the same amount of work which two similar size wooden washers will handle in a day's time. Moreover, the amount of supplies used, electric power, and current, are noticeably reduced. You will notice, also, that all of these machines are driven by individual electric-motor drive. This is one of the latest developments in the steam laundry, and the line shaft with pulleys and belts have become almost obsolete in the modern plants.

The Laundry and the Life of the Linen[1]

E. E. Jewett

THERE still exists in the minds of a great many people connected with institution laundries the impression that the institution laundry is a necessary evil. Far be it from that. The institution laundry in reality is a most valuable asset to any institution. It has been extremely interesting of late to note the changing attitude of hospital superintendents and others toward the hospital laundry. They are gradually realizing that in their laundry they have not only a conservator and cleaner of hospital linens, but also a purveyor of good cheer in that clean, sweet, white linens have a certain psychological effect on toning up a sick person's outlook on life.

The satisfactory cleansing, resultant conservation of the fabrics, and accompanying beneficial psychological effect are all dependent on one thing, and that is good washing. Let us, then, focus our attention on good washing, for we know that through the production of the highest quality of wash possible the other mentioned results will be obtained. The production of a satisfactory wash depends mainly on two factors, your equipment and your process.

Use Soft Water

We realize that not every institution laundry has ideal equipment. But, are you making the best of what you have? Water is not only the most important supply used in the washroom, but more of it is used than all of the other supplies put together. Therefore, you can easily realize why the quality of the water used is extremely important. Hard water, red water, and lack of hot water have a decided bearing on the quality of the work. The use of hard water is first of all detrimental from the standpoint of color. When soap is placed in hard water there results, through chemical reaction, the formation of lime soaps which are sticky and insoluble materials. This formation of the lime soaps will take place in the fabrics being washed and as a result there will be a gradual discoloration. It has been found that this deposition of the lime soaps takes place mainly in the rinses where there is not sufficient soap present to work up a good suds and thus keep the lime soaps in suspension. Once these lime soaps have been deposited and ironed in, it is almost impossible to remove them. It is not long before the gray discoloration has become so great that the fabric is not fit for use. Naturally, if it must be discarded, there must be another fabric to put in its place. This shortening of the life of the fabric necessitates an increase in the amount of linen purchased, with a parallel increase in expense.

It has been mentioned previously that in hard water soap will be reacted with chemically to form lime soaps. Naturally, through this reaction a certain amount of soap and soda will be destroyed before the cleansing action can start. For every grain of hardness per 100 gallons of water used, two ounces of soap and soda built in a ratio of two parts soap and one part soda will be destroyed. It has been proved economical to soften water above three and one-half grains of hardness. The amount of soap wasted in washing in hard water will more than pay for the cost of softening that hard water. The increased life of the fabric through soft water washing will in turn tend to decrease the annual

[1]Read before the laundry clinic at the first annual Hospital Clinical Cougress held at the Milwaukee Auditorium, Milwaukee, Wis., June 20-24, 1927. Mr. Jewett represented the laundry research department of the Proctor and Gamble Company.

expenditure for linens. Summing up the final results of washing in soft water, you will find cleaner linen, an increase in the life of the linen and a decreased washing cost.

I do not believe that it is necessary to tell you what a depressing effect smelly, harsh, and dingy linen has on both inmate and worker. Although you may have noticed an occasional lot of linen that had a decided yellow cast, you perhaps considered it the result of poor washing on the part of the washman, informed him of the fact, and then forgot about it. In reality, it was more probably the result of a faulty water system. Red water, which is the result of a high iron content will, because of the iron present, impart a yellow cast to the wash. Unless some preventive method, such as the internal application of silicate to the pipes, be used, it will be necessary to drain the entire system every morning until the water runs clear.

Temperature is Important

The temperature of the hot-water supply is important, particularly in the washing of white fabrics. This temperature should be such that the use of live steam in the washwheel is unnecessary. Water at 200 degrees F. at the supply tank, when brought through properly covered pipes to the washwheel, will raise the temperature the correct amount for each suds and rinse. All other conditions being equal, the higher the temperature the better the removal of dirt. On the other hand, water above 190 degrees F. in the washwheel will tend to yellow the white fabrics. In order, then, to have the maximum washing efficiency and at the same time safety for the fabrics being washed, it is advisable to have thermometers attached to the wheel so that the exact temperature of the water is known at all times. This eliminates another bit of guesswork by the washman.

Adjust and Repair Wheels

In what condition are your washwheels? Are they running at the correct speed? Are the ribs worn and does the shell leak? Are the filling valves and kickoff valves in good repair, or do you start a suds in three inches of water and end either with six inches in the wheel or with the wheel empty? There is a correct speed for every washwheel—a speed where you will get the maximum washing efficiency with the minimum amount of supplies. When your wheel runs under this speed there results not only a decrease in the cleansing action but a tendency to gray the white fabrics. This correct speed is dependent on the diameter of the wheel and the height of the rib. If the rib is worn either it must be replaced or the speed of the wheel increased until this maximum efficiency is obtained. A leaky shell, intake valves, or kickoff valve will change the height of water in the washwheel. Three inches of water on the suds is sufficient for bulk washing, while net washing requires at least five inches in the wheel to give good cleansing action. It is just as difficult to wash clothes clean in too much water as it is in too little water, and any mechanical condition that changes the height of water in the wheel handicaps the production of quality work.

Use Correct Processes

The second great factor in the proper cleansing of fabrics is the washing process. You have a decided advantage over the commercial laundry in that there is not the great variety of fabrics to be washed. The classifying of the linen should then be a fairly simple matter. The white pieces are classified into separate groups not because of a difference in the method of washing, but rather because of the method of handling. Although sheets and tablecloths are washed in a similar manner, they should be separated so that the ironing and distribution to their respective departments will be done with the least trouble and work. However, the colored pieces should be separated from the whites, because of the method of washing. The washing of the light colors in with the whites will result in the fading of the colors. Recent tests made on blue nurses' aprons showed that, if they were washed at a temperature above 110 degrees F., there resulted a noticeable fading.

It is not reasonable to expect quality work from machines or formulas where loads are abnormal. Yet, if there is any outstanding error that is common to the majority of laundries today it is this tendency to overload the washwheel. There is a maximum load for every machine. You cannot expect quality work if you load your wheels above this point. When you overload a wheel you obtain an uneven wash with a gradual graying of the white pieces. It requires more time to wash the load and also numerous extra rinses to remove all of the soap and builder. In the end you do not save time and your result is an inferior wash. Do not try to make the washman turn out more work than can properly be taken care of in his machine. In discussing briefly the formula or method of washing various fabrics we will dwell mostly on the washing of white fabrics.

The Break

The break is perhaps one of the most important operations in the entire formula. Unless the wash is started under the most favorable conditions, difficulties will be encountered in the production of A-1 work. In the break are removed the loose dirt, materials soluble in water such as sugar and starch, egg, blood, and other albuminous material. Since there are present stains which would set if they came in contact with hot water, it is necessary to keep the temperature below that danger point. A temperature of 90 to 100 degrees F. is recommended. Our reasons for recommending the use of warm water instead of cold is twofold. First, we know that the higher the temperature the greater the dirt removal. Second, by using warm water you are warming up the wheel and load, and, therefore, are able to obtain the high temperatures in the suds bath sooner than if cold water were used in the break.

A sufficient amount of soap and builder should be used to give to the water a soapy feeling. It is not necessary to work up a good suds, as the dirt that is removed does not require more for its removal than the slight lubricating effect of the small amount of soap that is added. Builder alone in the break will, of course,

increase the amount of dirt removed over that removed by water alone. However, the use of builder alone in the break is detrimental in that the accumulative effect results in a yellowish color. Since the dirt removed in the break is easily removed and in a short time an equilibrium is established between the dirt in the bath and the dirt in the fabrics, it is not necessary to run the break over five minutes.

In washing operating-room linen, the break should be repeated until the color of the water indicates that the albuminous portion of the stain has been removed. On the average, it will be necessary to repeat the break twice. The coloring matter or hemoglobin is later removed in the bleach bath.

The Suds Baths

The most efficient way to clean is to emulsify the dirt and carry it out without breaking down the emulsion, by means of successive suds baths. When you have a good suds in the wheel you have what is known as an emulsion. By working up a good suds in the bath following the break, a considerable amount of dirt is removed from the clothes by this emulsion. Knowing that the higher the temperature the greater the dirt removal, we, therefore, run in hot water for this bath which will increase the temperature to between 130 and 140 degrees F. The dirt removed in the first suds is a little more difficult to remove than that in the break, therefore, the bath is run for ten minutes. The detergent used in building this and the following suds should be of uniform composition. Whether the soap and builder are used dry on the wheel or in solution they should be built together. It is extremely difficult and dusty to build the powdered soap, but if you want to make certain that you are going to get the best from your supplies it must be done.

A second suds is then brought on at a temperature of 170 to 175 degrees F. and run for fifteen minutes. You note that there is again an increase in temperature and in time. This is necessary, as the dirt present is more difficult to remove.

There is much controversy with regard to the quantity of bleach to be used, the temperature at which it is used, and in what operation the bleach should take place. In the regular multiple-suds formula, the bleach is added in the last or third suds. This is run at a temperature of 170 degrees F. and if at the end of five minutes there is not a good suds on the wheel, more of the soap and builder are added. The entire bleach and suds are run for fifteen minutes.

A Bleach Formula

Hundreds of tests have been made in which the quantity of bleach recommended by the Laundry Owners' National Association (two quarts of 1.2 per cent bleach for every 100 pounds of clothes) has been used as mentioned previously, namely, in the last suds and at 170 degrees F. The depreciation in tensile strength of white cotton fabrics has not been over 7 per cent and in most cases under 5 per cent. If you will use bleach as recommended by the L. N. A., you will obtain satisfactory results with a minimum loss in tensile strength.

Rinse, Sour, and Blue

The rinse is a very important operation. Hard water should never be used as it is in the rinse that the deposition of the lime soaps takes place with the resulting discoloration of the fabrics. At least four good hot rinses with from 8 to 10 inches of water in the wheel should be used before souring.

The remaining alkali must be removed by a sour in the next operation. The proper application of a sour is beneficial to good washing. It not only removes any remaining alkali, thus preventing discoloration, but it also removes certain stains and prevents starched goods from turning yellow.

The blue may be applied in the sour bath or in a separate bath. It is advisable where the water is high in alkalinity to blue in the sour bath as the tint of certain blues is affected by alkali. The use of blue in the laundry is perfectly legitimate as long as the laundryman does not use it to cover up poor work. When selecting a blue, make certain that it will wash out in the following wash. Test it to see if its color is destroyed by bleach.

The multiple-suds formula, which was that explained for white work, may also be followed in the washing of colors, although it is necessary to keep the temperature below 110 degrees F. for the light colors and straight cold water should be used for the fugitives. No bleach or blue should be used.

Washing Blankets

The proper washing of woolen blankets is a necessary step in the conservation of those fabrics. Does your washing process produce a blanket that is stiff and harsh, or has the color been deadened? Are you troubled with shrinkage? If your blankets show ill effects from washing, then you can be certain that they are not being washed properly, for the proper washing will produce an unshrunken, bright, soft, and fluffy blanket. Let me mention a few of the precautions necessary in washing wool blankets. First, if you do not have special blanket-washing equipment, be sure that a high-water level is used, and that the machine is stopped while the wheel is being drained and is not started until the required amount of water has been run in. Second, use water at a temperature of 100 degrees F. and maintain that temperature from the start of the first suds to the end of the last rinse. Third, use a pure, neutral soap. Fourth, be sure, during the suds operation, that a heavy suds is used. Fifth, when rinsing, allow the wheel to make but four or five turns. Sixth, wash but a few blankets at a time. Seventh, use soft water. If you will take due precaution when washing the blankets, their life will be greatly lengthened.

Perhaps you have wondered why this talk has dealt mainly with washroom practice rather than "The Relation of the Institution Laundry to the Conservation of Hospital Linens." The reason is this. Proper cleansing of the fabric and the conservation of that fabric are inseparable. When linens are properly cleansed, you can be sure that the utmost care is being taken to conserve those linens and obtain maximum usage.

Hospital Progress

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THE BENEFITS OF CONVENTIONS

The threefold convention which will take place in Cincinnati, June 18 to 22, makes one reflect on the benefits of these annual conventions of which the Catholic Hospital Association is now witnessing its thirteenth and the International Catholic Guild of Nurses, its fourth, while this is the second annual Clinical Congress of North America.

Conventions are such a popular feature of modern life that they must possess very definite attractions and confer very notable benefits. These benefits consist, in part, in the gaining of information, the learning of the most recent advances in science and technic. These results would in themselves justify the holding of such conventions. But there are other good results not so immediately evident, but very useful. First, there are the many personal contacts for which they give occasion. Hospital workers live in a world of their own, and it is, in large degree, a world apart. Their work is very exacting, and they have problems and preoccupations which keep them much at home. The sick, like the poor, are always with us, and they always demand attention. Hence, the hospital workers find themselves somewhat aloof at times from human companionship, from the stimulus which comes from social intercourse.

Now, a convention takes hospital folk away for the time from their usual environment and brings them into contact with like-minded people whom they otherwise would never meet. It gives them an opportunity of rubbing shoulders with other hospital workers from far-off places, who live under quite different conditions, and it is stimulating to them to learn of the similarity of hospital work in other places. These contacts naturally give rise to discussions, exchanges of opinion, informal conferences which prove very illuminating, stimulating, and helpful. It is sometimes said that so far as the formal papers and addresses are concerned, one can often get them in print and read them at home. But nothing can take the place of the meetings and introductions, the conversations and discussions which take place outside the formal program.—*E. F. G.*

TAKING THE PAINS

Preventive medicine is a name to conjure with nowadays. But to secure the best development of preventive medicine for the interests of the public requires that many more medical and hospital workers shall be willing to take the pains to carry out the periodical examinations, the careful diagnosis necessary to detect disease in the preventable stage. Preventive charity is much nobler and more useful than remedial charity. Yet we find hundreds of people who are willing to give money to reclaim hardened criminals and to furnish refuges for the fallen, to one person who will spend freely to keep the young from going astray.

Similarly, in medical and hospital practice, we find many who are willing to work their heads off to effect cures, for even one who will work his head off to prevent people from falling ill. There is something much more spectacular, satisfying, and gratifying to the individual to come to a case when the patient is in desperate pain or very ill, and, by a skillful operation or by expert nursing, to cure the pain and uproot the ill. But it is tedious and uninteresting to many people to take a person who is apparently fairly well and to give him the tests and the examinations which will detect some incipient ill that can be scotched in the egg, so to say, before it becomes dangerous or painful.

In this regard, how many hospitals, how many physicians and nurses are still in the ancient and almost primitive stage of medical and hospital practice. It took a long time to get our people into the way of looking on the hospital not as a place whither to come to die, but as a place whither to come to get better. Perhaps it will take longer still to accustom the multitudes to come to hospitals as to places where one avoids and evades future sickness. One of the greatest elements in persuading the public to change their attitude toward hospitals has been the change in the hospitals themselves. When the hospitals ceased to be mere boarding houses for the sick and became well equipped and capable, the public soon perceived that it was to their interest to come not only for desperate remedies, but for ordinary cures. As soon as our hospitals become real centers of preventive medicine, with a staff perfectly willing to go to all the trouble and weariness required to detect and to prevent disease, then the public will come in increasing numbers not only for remedial *but for preventive medicine.—E. F. G.*

A DEGREE IN NURSING

The fact that universities and even smaller colleges are offering courses leading to a degree of bachelor of science in nursing is a recognition on their part of the fact that nursing is a profession.

The "training school" is gone; in its place the hospital conducts a "school of nursing." Some of these schools of nursing conducted by hospitals have been taken over academically by universities, the hospital supplying the "clinical" material just as it does for the college of medicine.

Another method is the one adopted by a college for women the announcement of whose nursing course appears in the news columns of this issue of HOSPITAL PROGRESS. The student pursues her technical course in any approved school of nursing and a course in arts and sciences in the college. At the end of her combined course in arts and sciences and nursing the college grants her a degree of bachelor of science in nursing.—*E. W. R.*

MUTUAL INTEREST

The process of specialization which is going on in all departments of hospital work has its dangers as well as its advantages. It is well and even necessary to specialize, because no one head can carry all the knowledge which medical and hospital science has to give. But at the same time, it is necessary to have a due intercommunication and mutual interest between the different departments of the hospital. After all, every specialty and every different division and department of hospital work has one great reason for existence, and one common bond of union, and this is the living patient, for whose sake all the great and various organization of the hospital arises. If it were not for the patient, there would be no specialties, no need of them, and the patient himself is not a mechanical combination of various organs and elements, but he is a living personality, a human being for whose benefit all the hospital specialists and hospital departments are at work.

If each specialty tries to go on independently of the others, the patient will be, so to say, pulled hither and thither by different influences, but will not get the complete and wholehearted service that he requires. But if every one is as interested in the success of the other's specialty as in his own, the patient will be the better for it. Add to this, that indifference and apathy on the part of one's fellow workers discourage and hinder the specialist, whereas, if he feels that every one about him takes an interest in his work, he is spurred on and encouraged to further effort.

The atmosphere of the hospital, where every one is interested in every one else's work, is cheerful, encouraging, and dynamic. Cooperation comes from working together, thinking together, pulling together, and these things are secured by interest in one another's work.—*E. F. G.*

IN OTHER LANDS

Some years ago, while in Paris, we had an opportunity of attending the opening meeting of the French College of Surgeons. The leading members of the medical profession were gathered on this occasion. Becoming known as the editor of a hospital magazine in the United States, we were courteously received by the secretary of the French College of Surgeons and he offered his cooperation in putting us in touch with the members of the College of Surgeons of which he was an official.

"Father," said he, among other things, "it is greatly to be deplored that there is not more intercourse and exchange of ideas and experiences between the medical and hospital workers of the United States and those of European countries, particularly of France. If you can bring about a closer contact, you will be doing a very notable service to both countries. Of course, a good deal of interchange does exist. Students from either country go to the clinics and postgraduate courses of the other. Yet there are many surgeons and hospital workers in the United States who know very little about what we are doing over here, and too many of our own people, in return, are all too unaware of the great advance of hospital work in the United States."

What the secretary of the College of Surgeons said might be remarked of other countries besides France. We ought not to fall into the mistake of undervaluing the hospital achievements of other countries. It is true that in most countries of Europe they have not the vast financial resources which make it possible for our hospitals constantly to increase their material equipment. They are obliged to practice an economy which would seem to us very trying. Yet these conditions have caused them to develop ways and means of work which it would be profitable for us to study.

Thus, to take one example of many, the comparative cheapness of local anesthesia has induced them to develop its technic until now, in some countries, practically all the operations performed below the diaphragm are done under local anesthesia, and even the majority of brain operations are performed in this way. Then, too, the lack of accommodations, and the need of freeing the beds for new patients as soon as possible, has resulted in the discovery that it is better to dismiss a patient in three days from the time of the operation for hernia, for example, than to keep him for an additional half week or week. These are only haphazard instances, but they point to the fact that we should do well to follow more closely the technic and discoveries of our fellow workers in the hospitals of Europe.—*E. F. G.*

PARTI-COLORED POISON

The influence of bad reading on the patient is curiously neglected even by hospital executives who are otherwise very conscientious. They would not think of allowing their patients to eat poisonous food, they would be horrified at the idea of allowing anyone under their care to drink poisonous drugs in quantities that would endanger life. They insist on aseptic technic wherever there would be danger of infection. But they calmly allow the infection of bad reading to enter the hospital and tolerate poisonous food for the mind between the parti-colored covers of cheap magazines, and lurid best sellers. Some current literature is indeed excellent, some quite harmless, but there are books and magazines which are distinctly poisonous in their moral influence. These ought to be strictly excluded from the hospital.

The hospital executives have both the right and the duty to control the reading of a patient. They have the right because the state of the mind powerfully influences the health of the body and because the patient is often unaware of the real danger to his condition which may come from bad reading. Whatever excites the passions, disturbs the mind, and makes the patient feverish, restless, dissatisfied, is distinctly bad for his progress in recovery as well as for his soul. The hospital executive, therefore, may well insist that while in the hospital, at least, the patient shall refrain from this sort of reading.—*E. F. G.*

The Editor's Pictorial Notebook

NURSES' SODALITY, ST. JOSEPH'S HOSPITAL, OMAHA, NEBR.
RECEPTION ROOM, NURSES' HOME, PROVIDENCE HOSPITAL, DETROIT, MICH.
MEETING OF DENVER CHAPTER, I. C. G. N., ST. ANTHONY'S HOSPITAL, DENVER, COLO.
A COZY CORNER, NURSES' HOME, PROVIDENCE HOSPITAL, DETROIT, MICH.
EXTERIOR, PROVIDENCE HOSPITAL, DETROIT, MICH.

LIBRARY, NURSES' HOME, PROVIDENCE HOSPITAL, DETROIT, MICH.
GYMNASIUM, NURSES' HOME, PROVIDENCE HOSPITAL, DETROIT, MICH.
ORGANIZATION MEETING, I. C. G. N., DENVER CHAPTER, MERCY HOSPITAL, DENVER, COLO.
CHILDREN'S DEPARTMENT, PROVIDENCE HOSPITAL, DETROIT, MICH.
CYSTOSCOPY ROOM, ST. ANTHONY'S HOSPITAL, DENVER, COLO.

photos by Father Garesché.

Medical Missionary Zeal

Rev. Edward F. Garesché, S.J.

MANY aspects of our life bring home to us the differences between knowing and realizing. To know a thing means to grasp it intellectually, to assent to it with the intelligence. We know very well a great many truths that move us very little. We know them because we have learned them from others and are convinced of their truth and accuracy, but they move us very little because they have never entered into our lives. They have never come home to us in a vivid, practical way. They are not sufficiently real to us.

Many of the truths of faith are in themselves so moving that they are capable of making us very holy if only they come home to us and influence our lives. But we know them without realizing them. They are, therefore, of little efficacy for us. Not what we merely know, but what we realize moves us to action. Thus, those who realize the meaning of the Crucifix can scarcely look on that sacred emblem without being moved to tears, and it gives them a great sorrow and hatred for sin merely to see a cross. But how many Catholics there are who may never shed a single tear at the sight of the Crucifix. If you would ask them what the figure of Christ crucified stands for, they would tell you that it represents His pitiful sufferings, borne for our love, and that He died on the cross for our salvation. But they have never realized what Christ's sufferings mean, how great they are, and from what immense love they come and, therefore, they go on sinning, or at least they live careless, slothful lives without much love of Christ, because His sufferings have never been made real for them. They have never brought home to themselves what it means to say that the Son of God became Man and died for us on the cross.

A Constant Difference

This same difference between knowing and realizing runs through the whole of life. It explains many things. It accounts for the inconsistency of Catholics who believe so firmly in the existence of future rewards and punishments and still lead such indifferent and careless lives as though heaven and hell were not realities. It explains, to some extent, the cruelty of men toward the poor and distressed, the inhumanity of men toward man. If the rich or the comfortably well-to-do but realized the sufferings of the poor, but felt inwardly how the destitute endure cold and hunger, anxiety and humiliation, they would be much more ready to help and relieve them. But "out of sight, out of mind" and we forget the distresses of others and disregard them because they are not real to us.

What has all this to do with medical missions, and medical missionary zeal? A very great deal, because the great reason why our Catholic hospitals, our hospital Sisters, the nurses, the doctors, are doing so very little proportionately for the Catholic medical missions, is that, though they may know of the needs of the missions, they somehow fail to realize those needs. If it were possible to take them all on a great pilgrimage to mission lands, to bring them into the midst of the critical conditions under which the mission Sisters and priests and brothers have to work, to show them the throngs of destitute sick poor, who come with all manner of diseases to seek aid from the missionaries, how their medical missionary zeal would be stirred! They could not help doing everything possible after that to send supplies, to forward good literature, to collect money and give it to the medical missions, because then they would realize the distressing needs of the medical missions, and the sublime opportunity for service which they offer.

On Far Frontiers

Such a pilgrimage would have to visit all the lands of the earth. It would find priests and Sisters and brothers battling bravely sometimes against tremendous odds, on all of the far frontiers of Christ. It would find them in the swarming populations of Asia, where men grow thick as weeds, to use De Quincey's famous similitude. It would find them in the frozen regions about the poles, to the north and to the south, ministering to the spiritual and temporal needs, of scattered tribes, sharing their privations and hardships, for the sake of Christ. Some missions it would find in the midst of old civilizations, whose thoughts are not our thoughts and whose ways are not our ways, but where millions of people, afflicted with strange diseases, await the medical ministrations which will pave the way for their meek reception of the Catholic faith.

In the midst of these civilizations, older than our own, the pilgrims would find missionaries surrounded by crowds of the poor, the sick, the afflicted, who throng to these people of the West because they hope to receive from them some relief for the ills of the body. If their hunger and nakedness are relieved by material gifts, if their wounds are dressed and healed and their physical sufferings and diseases are relieved by medical and surgical care, these people are grateful and appreciative. They naturally listen then with much more docility and interest to the teachings of the missionaries, and they are easily convinced of the divine character of the Catholic religion, because they have experienced its Christlike charity. In like manner, those missionary priests, Sisters, and brothers who work among savage tribes are beset with requests for medical care and treatment. The children of nature, like the more sophisticated dwellers in cities, are prompt to recognize true Christian charity. Their hearts are touched and made receptive to Christian teaching by medical ministrations to their suffering bodies.

The Hospital Pilgrims

The hospital pilgrims, whom we are imagining, would be full of wonder and pity, full of distress as well, to see what scant facilities the mission workers have to minister to the throngs that press upon them. They would be reminded vividly of those passages in the Gospels which tell of the manner in which the Jews carried out their sick and blind and lame and set them by the wayside that they might be healed by Christ. By hundreds and by thousands, by tens of thousands, men and women with chronic or acute diseases throng to the mission dispensaries. The scanty medical supplies of the Sisters are soon exhausted. Sometimes there are no more bandages available to dress the aching wounds. Hundreds of patients flock daily to the dispensary, and each one requiring some bandaging of wounds or sores. Thus they have carried away the limited supply, so the Sisters are obliged to use pieces of paper instead of bandages. For these, wrapped about the wounds, will at least keep out the dust and form some protection for the sores and wounds.

Those who work in the dispensaries, clinics, and emergency rooms of our well-equipped hospitals, are accustomed to have at hand an abundant supply of everything needful and even useful for their work. They have only to ask for bandages and these are ready. They have only to apply for certain drugs and these are at hand. Suppose that you had to do your work with utterly

UKAKONJEUR HOSPITALS, SHOWING NATIVE C. M. B. NURSE.

insufficient equipment. Suppose that all you had to offer, for minor operations, was a pen knife, sharpened and sterilized as best might be. Suppose that, when your bandages were exhausted, you found it impossible to get any more, but had to tear up newspapers and to wrap them around wounds. That would be atrocious! You would refuse to work under such circumstances!

Yourself in Her Place

Yet, transport yourself now in imagination to the mission field, and put yourself in the place of one of the missionary Sisters. You would do the best you could, even with such wretched equipment and scanty supplies, rather than let the people go away, disappointed, suffering and uncared for. You would go to any personal trouble, would use anything at hand that would serve the purpose of relieving them. Such is the situation of the Sisters who work in the foreign missions. But our hospital pilgrims would be touched no less at the sad plight of so many of the missionary priests, Sisters, and brothers themselves, from the standpoint of medical treatment and surgical care.

"Suppose you felt ill and needed an emergency operation for appendicitis, let us say," they would ask of some missionary, "how far is it to the nearest hospital, where you could get surgical aid?"

"A hundred miles," some of them would have to answer. "Two hundred miles, even five hundred miles!"

"And how could you reach that hospital?"

"By canal boat," one would reply, "and it would take days and perhaps weeks to get there; or, carried in a litter, and that would take a still longer time."

"Then you are practically helpless if sudden disease should strike you?"

"Yes, and when we do go to a hospital, there is none at hand but a Protestant mission hospital, so we have to seek the aid and hospitality of Protestant missionaries. There is no Catholic hospital within a far greater distance."

Our's and Their's

This, alas for us, is the fact. The Protestant hospitals are numerous and well equipped in comparison with those under Catholic management. What, then, do the missionaries do when they fall ill and need the service of physicians? They do the very best they can which often is very little. Too often, having done what they could to be cured, they die at their posts, in the flower of their youth, after having made the supreme sacrifice of dedicating their lives to the service of God. The remainder of their days is blotted out. The service which the Church and the missions could have received from them is lost. When, with proper medical care, they might have gone on for many years, instructing many souls unto justice, they die, untimely for lack of medical care.

There comes to mind the instance of a brave and fervent missionary who went to China. We met him in the United States, as he was leaving for his field of labor, and he wrote back enthusiastic letters from the Chinese missions, telling of the great spiritual fruits to be hoped for, and of the vast possibilities of his work. Scarcely had his last letter arrived, when news came of his sudden and untimely death. He had been stricken down with influenza and pneumonia. So great was his bodily vigor, that he did not realize the gravity of his sickness. There was no doctor within reach to be called in to advise him. Not knowing his own mortal peril, he rose up from his bed of sickness to give Holy Communion to one of the natives, who was far less ill than he. In a few hours he returned to bed, and died utterly without help. With medical aid, or even with proper medical instruction and the use of a clinical thermometer to detect his dangerous fever, this man might still have been laboring in the mission field, for even today he would not be very much past the flower of his youth.

Another Sad Example

Another instance, but that of an older man, is that of a veteran missionary. He, too, was stricken, but with appendicitis. No doubt he realized the seriousness of his condition, because of the intense pain. The nearest hospital was, however, several days' journey distant. He caused himself to be put on a canal boat, and writhing in agony, he was slowly transported to the "nearest" hospital. Some three days' journey distant, after days and nights of pain, he finally reached the operating table, but it was too late. Peritonitis had already set in, and in a short time the valued missionary died. Had he been within reach of a nearby hospital, or even had there been a surgeon near, he too, might still have been laboring in the mission field. So one might give example after example of the perils our missionaries run, the disadvantages they labor under, because of the lack of Catholic mission hospitals, of dispensaries, of supplies for the medical missions.

As our imaginary pilgrimage goes about from mission station to mission station, it will find the missionaries in the heart of the jungles of Africa, in the remote wastes of Alaska, in the steaming forests of the tropics, as well as on the dazzling snow plains of northern climes. Remote as they are from all civilization, these missionaries must necessarily live far away from hospital facilities. Yet, every one has with him, as part of his missionary supplies, some simple remedies to be used in the case of emergencies for his own ills and for those of his people.

But how scanty these supplies often are. How poorly chosen they sometimes prove. How little knowledge the missionary has, of just what to do in cases of emergency. Many missionaries have gone forth trained very well indeed in philosophy and theology, in all necessary branches of missionary lore, except in the important science of caring for their own health and for the health of those committed to their care. The Catholic Medical Mission Board aims at supplying this necessary knowledge. It conducts courses of lectures for missionaries, assists those who are going on the missions in making ready for the rude life they will have to lead, by imparting those principles of hygiene which will enable them to lead a normally healthy life, even in unhealthy neighborhoods. Tropical diseases have been carefully studied, remedies have been discovered for them. The dreaded malaria can be avoided by carefully screening one's dwelling against the deadly mosquito, the carrier of the germ. Smallpox is no longer a dangerous disease when vaccination is used as a protection from it. There is a vaccine for typhoid, that scourge which haunts the tainted pools of drinking water.

The Armies of Christ

The armies of men, the soldiers who fight for nations, have been carefully safeguarded by various processes of immunization. Smallpox has no terrors for them, typhoid is rare in well-managed armies. But the armies of the Lord, striving to spread the frontiers of Christ, holiness and peace, are often still in as unprotected a condition as though medical science had made no discoveries for the past hundred years. The Catholic Medical Mission Board seeks to remind all missionaries to be periodically vaccinated and immunized, so that their precious lives may be defended against these deadly diseases.

The medicine shelf of the missionary is one of the most useful parts of all his equipment. He must have recourse to it for his own needs and for those of his people. But who will advise him, and help him to replenish his medicines when they are low? Who will give him the drugs, the bandages, the salves, the ointments that he needs? The Catholic Medical Mission Board is organized for just this sort of help and cooperation with the missionaries. It can purchase at wholesale rates, or it can obtain through the donations of our hospitals and of nurses and doctors, ample supplies of drugs, dressings, and salves to replenish the hard-worked missionary's medicine she'f. All these suggestions have been made, though, many times, in the pages of HOSPITAL PROGRESS. But what a difference there is between knowing these things and realizing them. Merely to read of them, has had a limited result and only a comparatively few of our hospitals are sending in regular gifts of supplies and equipment. But how touched and sympathetic our Sisters would be if they actually saw the conditions we have been describing! What active and practical resolves they would take to cooperate constantly, and to the utmost of their ability, with the medical missions.

NURSES' HOME, ST. VINCENT DE PAUL HOSPITAL, BROCKVILLE, ONTARIO, CANADA.
A Fireproof Building Opened April, 1925.

Their Long Experience

In the course of this imaginary journey, our pilgrims would see many a fine, well-equipped mission hospital, many a dispensary, overflowing with supplies, with nurses and doctors in constant attendance, as well equipped and as generously furnished with everything needful as one of our hospitals or clinics at home. "Why all this talk of the need of medical missions," they might ask, "when splendid institutions already exist on the missions?" "Alas," the answer would come back, "these institutions exist, but they are all Protestant mission stations." For many years the Protestants, and especially the Protestants of America, have been pouring men and women and money into the mission fields to build up a system of hospitals, dispensaries, and medical care.

They know by experience what a powerful aid this is to "converting the heathen." We know it, too, but have failed to act on the knowledge. Strenuous work, for twenty years to come, may not be enough to raise our medical missions to the standard which the non-Catholic missions have set.

Many a hospital superior and many a hospital worker, if they were to go on such a pilgrimage, would, on returning home, move heaven and earth to send supplies to the medical missions. When any article of equipment was retired for a more modern installation, the first thought that would come to their minds would be to send the still useful operating table or sterilizer, or what not, to the Catholic medical missions. The samples that come into the hospital would be gathered up sedulously and sent to the medical mission board. Indeed, some hospitals might give tithes to the missions, and when a new assignment of gauze, a new load of bandages, new instruments, were added for the hospital, some little part of these abundant supplies would be sent to the medical missions.

A Special Blessing

Surely this would bring a special blessing upon the work of the generous hospital, and through a little extra economy, practiced in the name and for the sake of the missions, the gift would probably be counterbalanced and made up for in its value by what could be saved, with a little extra care.

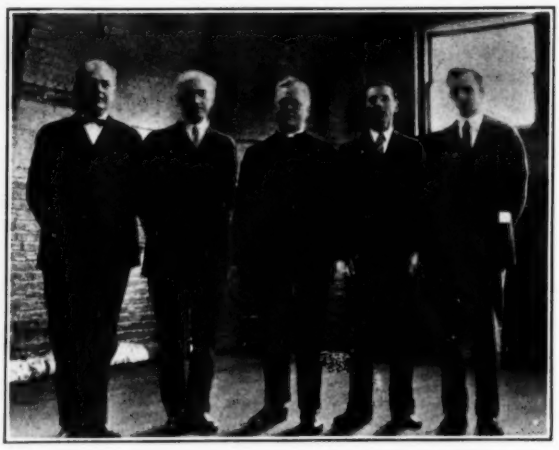
Such would be the results of the actual contact of our hospital workers with medical mission conditions, and medical mission needs. But why should we wait for such an impossible pilgrimage? Why can we not, with prayerful zeal, realize, even here at home, the needs and opportunities which the medical missions offer us? Why not begin now, really active, constant and zealous cooperation with the Catholic Medical Mission Board, and thus bring a blessing upon yourself, on your hospital, and on all its personnel, its patients, its activities. "The Lord loveth a cheerful giver." He also loveth a prompt, a constant, a remembering giver.

National Hospital Day, May 12

Elmer W. Reading

NATIONAL Hospital Day was originated several years ago by Mr. Matthew O. Foley, managing editor of *Hospital Management*. The movement has spread rapidly throughout the United States and Canada and has been adopted in several foreign countries. May 12 was chosen as a fitting time for the celebration, it being the birthday of Florence Nightingale.

Many Catholic hospitals have been taking part in this observance. Catholic hospital workers should have a special interest in Hospital Day for two reasons: First, because they have a record to be proud of. The religious Orders of the Church and the clergy have always held a conspicuous place in the care of the sick and needy. Second, the Catholic hospital workers should welcome a chance to increase public interest in their work, because their work is invariably a public charity and depends largely for its success upon the generosity of the public.



COMMITTEE FOR THE CELEBRATION OF NATIONAL HOSPITAL DAY, MAY 12, 1927.

John A. McNamara, Executive Editor, "The Modern Hospital." Wm. H. Walsh, M.D., Executive Secretary, American Hospital Association. Edward F. Garesché, S.J., Editorial Director, "Hospital Progress." Geo. C. Braun, Business Manager, "Hospital Topics and Buyer." Matthew O. Foley, Managing Editor, "Hospital Management."

Florence Nightingale was very friendly to Catholic hospitals. She studied the work of the Catholic hospitals of Europe and also made good use of the services of the Sisters in her organization of the nursing service in the Crimean war. The late Mother Mary Joseph Lynch, the founder of the Sisters of Mercy in the Diocese of Grand Rapids, Michigan, was a nurse in this war and was closely associated with Florence Nightingale.

There are many interesting activities suitable for the observance of National Hospital Day. As the main purpose of the observance is to secure more public interest in the hospitals, any legitimate activity that will interest the public is worth considering. Reunions of patients, baby shows, pageants by the nurses, poster contests, newspaper publicity, merchants' window displays, all these have been used.

Of course, if at all possible the hospital will hold open house on the afternoon of Hospital Day and make the visitors feel welcome and glad that they came. A tour of the building will give the Sisters or doctors or nurses a chance to make people realize how much a modern hospital costs in money for equipment as well as in education and hours of service on the part of professional people and skilled workers. The importance of the hospital as a leader in public health work should also be brought out.

For a large share of the publicity incident to the observance of Hospital Day, the hospital must depend upon outside help. professional men can be persuaded to give addresses in behalf of the meetings at luncheon clubs and other organizations. The theaters will advertise the day, the newspapers will comment on it editorially, and merchants will feature articles pertaining to hospital practice in their advertisements and window displays.

Some hospitals conducting a nursing school make Hospital Day an occasion for explaining to high-school students the opportunities of the nursing career. Previous issues of HOSPITAL PROGRESS have contained articles on this subject by the Sisters.

HOSPITAL DAY AT ST. MARY'S GENERAL HOSPITAL, LEWISTON, ME., MAY 12, 1927.

Organizing Occupational Therapy in a Large Mental Hospital[1]

Rebecca A. Adams, Chief Occupational Therapist, New Jersey Hospital, Greystone Park, N. J.

STUDY the temper of the institution and its neighborhood before sketching a broad, flexible plan to meet the needs of today and tomorrow. Let us assume that a general sentiment in favor of occupational therapy has secured the services of a director thoroughly familiar with mental symptoms, handicrafts, and state-hospital procedure.

Talk with the principal executives of the hospital and the local board, find out what they hope to accomplish through organized occupations and by what steps they expect to proceed. Visit the patient body again and again, considering types of cases, preponderance of foreign or native, percentage of young and old. Consider to what extent the employment of patients in sewing rooms, laundry, shops, etc., will permanently reduce occupational therapy enrollment.

Purpose of Occupational Therapy

At this point it would be well to submit to the superintendent and clinical director for criticism, a plan toward which the department might work as a goal. This would include: (1) habit training, (2) ward occupations, (3) centers for both men and women, where patients might see various crafts brought to a point of excellence, and, for a small group of both sexes, a fourth grade of prevocational classes, arranged actually to equip the individual patient for his individual adaptation to life in the world at large. We are all thoroughly familiar with such training for men; less frequently do we give personal consideration to women who would profit by instruction based upon a study of their capacities for mastering some work which would have a commercial value in the open market. Let us suggest fine laundry work, correct serving of meals and waiting on table, millinery, dressmaking, and perhaps typewriting. Here the social-service department could make valuable suggestions, destined to help solve its problems in placing patients to the mutual advantage of employer and employee.

In our classes patients become familiar with picturesque occupations such as spinning and weaving, basket making and block printing, all excellent as curative aids, but all signally dependent upon special tools which the patient will probably never encounter after leaving the hospital.

Next comes the selection of a small well-trained staff of men and women, professional in its aims and methods. If contacts are good there will be little difficulty in gaining the cooperation of untrained assistants in winning the interest of the patient body. This brings us to the problem of the status of the untrained assistant as compared with the regular ward attendant. Experience seems to prove that while the hours are rather over compensatory, these apprentices belong exclusively to the occupational-therapy department, subject to its hours and regulations. By such an arrangement their loyalty is secured, and their capacity for picking up a knowledge of crafts so quickened, that soon they are able to carry on successfully in the case of absences of the therapists in charge.

Stake out the boundary lines of your venture by making simultaneous small beginnings toward each grade of group work. Take over the best available space for centers and prevocational classes. Declare at the outset your purpose of taking no commissions except in the industrial groups, for experience has demonstrated that once commercial is apt to be always commercial. As soon as possible, show the therapeutic value of the work by writing up two or three cases in greater detail than the regular record sheets will permit.

Now convince your chief executives what you could do in ideal surroundings with adequate equipment, emphasizing not only the therapeutic value, but for some members the inevitable financial return as well. Then ask for an appropriation sufficiently large to launch your ship.

Good Will of Physicians

Perhaps I have delayed too long in speaking of the keynote of success, namely, the good will of the staff of physicians. Upon their belief in occupational therapy as a weapon with which to combat deterioration and demoralization depends the morale of the staff of instructors. Let us turn this belief to account by inviting them to give occasional talks upon the eternal triangle—patient, record, and craft.

As I survey the whole process of establishing an occupational-therapy department in a large state hospital, two words recur with particular frequency—advertisement and salvage. Advertisement, because one becomes a sort of modified barker of the county fair, proclaiming one's inestimable worth while grasping whatever can be turned to account. Salvage because the theme *is* salvage from first to last: A saving of energy both mental and physical, a saving of property destined to destruction, saving of products otherwise discarded as waste, and a saving in numbers of employees required to control the unbalanced unemployment. Let the entire neighborhood know of the new form of treatment, demonstrate to the nursing force the comparative peace which settles upon a tumultuous, chattering, assaultive group when brought to anchor and held down to the completion of a definite piece of work. Show the social service that time spent in classes can be made to dovetail with plans for the patient's future. Convince the relatives of the value of occupational therapy for their patients, talk about it before your civic and service clubs. The local paper is sure to be interested in visiting the department and writing up the experience. This all brings contributions of materials which can be used to great advantage in the early struggle for place.

As to the disposition of product, there are various possibilities. Perfect work may be disposed of by sale at the institution, or through the local women's exchange, or by sales held annually at the homes of enthusiastic friends and board members. Class two, *The Masterpieces —Gone Wrong,* are in our own case at the New Jersey State Hospital at Greystone Park, snapped up each summer by an artists' colony in the foothills of the Catskills, where 20 per cent of the proceeds go to the local library. As to the *Utterly-Unsalables,* they remain in the wards to gratify their makers, or are turned over to the hospital for general use. One last, and I hope small, class remains, the *Well-Made-Atrocities.* You who know the state hospital visiting public, know how deeply this product is appreciated and how rapidly it disappears.

Discussion

Miss Black: Miss Adams has left little for discussion in her interesting paper. I am especially glad that she has stressed the necessity of including in her program

[1]Read as part of a symposium on Organization, Methods and Work in Mental Hospitals, held October 10, 1927, at the eleventh annual meeting of the American Occupational Therapy Association, Minneapolis, Minn., October 10 to 12, 1927. Released and publication authorized by the Association.

all activities—from habit training to preindustrial. The inclination is often to specialize on some rather indefinite activities and lose sight of the most important. Today we are beginning to realize that our biggest opportunity lies with the habit-training group. It is there that we find true curative work, and facilities should be provided in the workroom plans for plenty of habit-training work.

The idea of frequent talks from members of the medical staff is an excellent one. Such talks lead to a thorough understanding between the therapist and the doctors of the benefits to the patients. Do not stop here, however, but have the steward explain the functions of his department, have the fire marshal explain fire prevention, and plan for fire drills. There are few hospital departments that will refuse to cooperate if the therapist shows that she is willing to do her part.

Miss Adams has spoken of conversations with relatives of patients. We have noticed that in the event of a patient returning to the hospital for further treatment, that the relatives invariably ask that the patient be returned to the occupational and recreational classes, as they feel that these two activities have done most to make the patient happy and contented during his stay in the hospital, and have contributed more to recovery, than any other hospital department. It is a good thing to remember that the reputation of the hospital rests largely upon what impression is made upon the relatives.

I should like to agree wholeheartedly with Miss Adams' program as she has given it, but there is one question that insists upon coming up for discussion, and that is, the advisability of taking any orders, even in the preindustrial classes. Personally, I have always felt it was not fair to the patients to insist upon their doing a fine piece of work for a customer who in all probability does not understand and does not care to understand the workings of the unbalanced mind. Very frequently the piece of work is not exactly satisfactory, resulting in a displeased customer and an unhappy, upset patient. This is my personal opinion and I would like to hear some discussions of it from other therapists. As we are getting deeper and deeper in the purely therapeutic side of occupational therapy it seems as though it would be a good idea for those who contemplate organizing departments to give this question serious consideration. Because it can be settled much more effectively in the beginning than after a department has been functioning for a year or so.

There are two activities that I would suggest be considered when organizing. The first is a recreational program. Possibly Miss Adams did not mention this because in many hospitals it is a department by itself. It seems, though, that some thought should be given in the beginning to recreation, because often an approach can be made to a difficult patient through recreation when an occupational approach has failed. The second is giving lectures and practical work to the student nurses. This, however, can wait until the second year, until the department has proved itself. Graduate nurses spread the news of occupational therapy after they leave the hospital.

The personality of the therapist is the greatest influence upon the success or failure of the department.

The more familiar I become with organizing occupational-therapy departments, the more closely I can see its resemblance to the art of flying. There are two kinds of flying. The first kind is that indulged in by flies. Some therapists are like that. They enter the peaceful sanctity of a hospital, flit aimlessly about, accomplish nothing, annoy everyone with whom they come in contact, and finally buzz once too often into the superintendent's office, to their own undoing. The second kind is that done by aviators. With proper equipment and preparation they carefully choose their destination and start, a small bird winging its way through the blue, hardly disturbing the elements about it, yet making its presence felt. Some therapists are like that, very unassumingly they arrive—and stay.

Mrs. Tompkins: Every two months the chief occupational therapist at Manhattan State Hospital is required to give a two-hour lecture for the attendants. We have regular instruction classes for them for about three months, for all new attendants who come into the hospital. If they afterwards enter the training class for nurses they have to go through another course. The lecture to attendants is not with any direct purpose of making them useful, but of giving them an idea of the whole hospital.

Miss Adams: I think it is a splendid idea because all of those attendants will at some time be on a ward. For instance, we have perhaps 70 patients in a ward class, very disturbed patients, very difficult to handle, and we have two girls who have got their training, one over three years and the other over a few months, and every once in a while one of those girls is away or sick and it leaves only one to handle those 70 patients and they are always striking or kicking or biting. If the average attendants going through that ward had had instruction they would probably be more helpful than they are.

Mrs. Tompkins: I can also say that we do not take orders, the superintendent feels that it is not the right thing for the patient. Invariably if the customer wants something in blue the patient will want to use red.

Miss Robeson: At King's Park we had very much the same thing Mrs. Tompkins spoke of; the attendants came regularly to two lectures in about three months. It is the hardest job I ever had in my life to talk to about 70 men and women who are absolutely bored to death. Also, we do not take orders. We found out, as Mrs. Tompkins finds, it is not good for the patient—also, not for the chief occupational therapist. We had some lace given us to put into some underwear and we found it was about four yards short and after that we took no orders. It is, as Mrs. Tompkins said, they always want the things you have not.

SELECTING AND TEACHING STUDENT NURSES

Sister M. Wenceslaus, Providence Hospital, Oakland, Calif.

IT is becoming a fad among young girls who have passed a year or two of high school to take up nursing, considering it a lucrative and easy way of gaining a livelihood, not giving the work sufficient reflection. Nursing in the modern acceptance of the term is both a science and an art. Its real essence is and must always be personal service to the sick or helpless of all classes, rich and poor. The real care of the sick must always be the first consideration. All other aspects of nursing are and must continue to be secondary in importance. The ideal training is, therefore, not that which covers the most ground, but that which fits a nurse to render the highest and best practical service to the sick. Now how shall we get this class of nurse?

The character of the pupils admitted for training will determine, to a large extent, the quality of the work done and the real spirit of the institution. It is as necessary to secure good material to train as it is to give a practical, well-rounded training. No amount of training will make anyone a really good, conscientious, reliable nurse, unless she is a good woman to start with. If, then, it be true that good nurses are born, not made, this is preeminently true of the head nurse, to whom, because of fitness for leadership, has been committed the immediate charge of certain sections and departments of a hospital and the direction of nurses. She owes to the nurses whose work and conduct she directs, a careful attention to the details of their service. A study of their individual characteristics, an intelligent use of all the means at her disposal

that will aid in their development as nurses, and an example that will be safe for them to follow. What the head nurses of a hospital are, we may expect the pupil nurses to be. Therefore, if the head nurses are lacking in dignity, free and familiar in their relations with physicians, harsh or unsympathetic in their bearing toward the patient, we may expect to see the same qualities in the daily lives of the pupil nurses. In a hospital, perhaps more than in most institutions, it is necessary for military discipline, military precision, military obedience to prevail. We must see that the rules of the hospital, both in regard to etiquette and work, are carried out strictly. If the pupil nurse is taught by one head nurse that a thing must be done this way, by a second that way, and by a third a totally different way, she soon becomes careless and thinks that "any old way will do," and who can blame her?

The probationer entering on her three-months' course of training should be studied by the head nurse as to her fitness for the work. A short practical reading course might be prescribed for candidates whom it seems desirable to admit for training. This course could form a basis for examination on entrance, and would probably help to weed out the unfit and save the time of giving them probation preparatory work for which they are not adapted.

From the first day of a nurse's career in a hospital she should be given to understand in unmistakable language that it is required that every nurse shall conduct herself so that she will be above suspicion inside and outside of the hospital. A copy of the rules should be handed to the probationer. The institution owes this to every pupil who enters, but it too often happens that she learns the rules only by breaking them. When the nurse has been told the rules it is the business of the head nurse to see that they are enforced, as far as relates to each head nurse in her department, and for the newcomer to obey without comment, in order to cooperate with the superintendent in the maintenance of discipline.

The probationer, if accepted at the end of her three-months' probation, will be given her cap and told how to wear it. Her hair will be kept in place by a net if unruly looking. She will wear the uniform of the hospital which will be of special design, a neat crisp white apron, shoes and stockings as uniform as possible. These little details in the neatness and tidiness of the nurse help to give an air of refinement to the institution and encourage the entrance of the eligible in order to meet the demands and promote the satisfaction of physicians and the public.

Pupils of the stamp of womanhood I speak of, will certainly avail themselves of the Sunday devotions. Quite a number of our hospitals carry on throughout the nurse's training a course of instruction on faith and morals, and the custom is surely one to be commended. If we expect a nurse in her daily life to exhibit the Christian graces, to be just, honest, kind, charitable, to refrain from harsh judgment, it is worthwhile to take a half hour occasionally to think on these things, to study how these virtues may be cultivated. They are not as a rule compulsory; no dreaded examinations will follow them, but they are distinctly helpful to the nurse and through her to the hospital.

Ophthalmological and Otolaryngological Departments of the General Hospital[1]

Edward F. Stevens, F.A.I.A.

THE subject assigned me by Dr. MacEachern in this symposium on the standardization of the Ophthalmological and Otolaryngological departments in the general hospital is the Standardization of Architectural Planning for these hospitals. Any observations which I may make are more or less the reflections of the medical men with whom I have worked in the planning of these departments in various hospitals during my practice as a hospital architect.

Can these departments be standardized for the general hospital? Yes and No! Yes, if we can agree upon a standard, but whose standard will it be? Will it be like the man who being asked if he would agree to a standard religious doctrine, said "Yes, let them all be Baptists!" We find almost as many differences in opinions in the treatment of disease, as we do differences in religious beliefs. Whether these departments can be standardized or not depends largely on the medical men in charge.

It seems to me that in order to be a success any hospital department must be planned around the particular needs of the particular hospital to afford the maximum facilities for the carrying on in the most scientific way the work of the specialists of that department. I appeal to you for frank suggestions and constructive criticisms of any thoughts which I may offer, in order that the future departments which I may plan may be better suited to the needs of the surgeons as well as the patients.

It seems to me, however, that the difference in opinions of surgeons makes it impossible to standardize except in a general way any particular arrangement of rooms, booths, lighting, or equipment, so it is quite necessary before laying out a department of this kind to consult, if possible, the wishes of the men who are to use them. For instance, after laying out a nose and throat department in a certain hospital, and feeling that the location of lighting and arrangement of equipment was fairly well established, and the clinic nearly completed, what was our chagrin to find that this particular surgeon wished the light and the fixtures reversed. To avoid such an occurrence there should be, before the details are finished, most careful cooperation with the men who are to do the work.

Again, these departments depend upon the personal qualities of the surgeon in charge, and his clinic may grow where others stand still. We know of one example where the eye, ear, nose, and throat clinic occupies about 50 per cent of the entire clinical department. Provisions should be made for the work of the eye, ear, nose, and throat surgeons in the general hospital. (1) For *outpatient work,* (2) for *temporary housing for children recovering from minor operations,* (3) for *permanent housing* for patients undergoing major operations (and I use the word guardedly, for there has been so much discussion of late as to just what a major operation is, where it begins, and where the minor operation ends), (4) for *operating-room facilities* for the major operations.

Outpatient Rooms

For the outpatient work, so far as the general admitting, waiting room, etc., are concerned, no special provisions, other than for any well-planned outpatient department, need be made. In the examination and treatment rooms, however, special provision is needed. For

[1]Paper read at a Conference of the American College of Surgeons, Hotel Windsor, Montreal, Canada, October 27, 1926.

the eye, we must have a special examining room, a refraction room with correct focal length, and dark room. The refraction room should be 23 or 24 feet in length to permit the doctor to pass back of the patient facing the chart, or, if the room is restricted, the reflecting mirror can be used with equal facility with a room half the length. This restricted length often works out to better advantage in the regular hospital, but connected to this and the examining room a totally dark room, painted with a dark absorbing color, should be provided. If this is an interior room, it should be well ventilated. Subdued color in the examining and refraction rooms prevent eye strain.

For the ear, nose, and throat work, there should be an examining room, a soundproof room for hearing tests, and booths for examining. I have tried to standardize a booth, which has been used in a number of hospitals. I found this type working very successfully in the outpatient department of the Rigs Hospital at Copenhagen and adapted it to our use. The screens for these booths are made of metal sufficiently high at the back or wall to hide one patient from the other, and sufficiently low at the outer end so that the surgeon can have a clear vision of the room. Attached to the screen is a table and shelves with provision for sterilization, light, air under pressure and exhaust, and pockets to hold bottles of solution, etc. A dental bowl for expectoration is placed on the wall near the patient. These stalls, placed about 4 feet on centers, have proved very satisfactory in a number of hospitals.

Temporary Housing

It is desirable especially for small children to have wards or rooms set aside for the recovery from tonsil and adenoid operations, where the house patients will not be disturbed. This section is preferably placed near the outpatient department and the size will depend on the size of the clinic.

Permanent Housing

For permanent bed provision of patients of this department, no special arrangement other than the standard hospital provision need be made; but may I suggest that small wards or private rooms are the only humane way of housing patients anyway, and as the patients of these departments are more or less ambulatory patients, provisions for toilets adjoining the rooms should, in every case, be made. Of course, with the eye cases the windows must be susceptible of being darkened and the walls should be painted a subdued color.

Operating Rooms

For the operating room accommodations for these departments in the general hospital, I find that the surgeons on every hand are demanding better facilities than have been accorded them in the past, better location, better light, and better equipment. We are providing now in the newer institutions special operating rooms for the eye, with better facilities for cutting out daylight, when daylight is not needed, and are setting apart special rooms for this work, with special scrub-up, special sterilizing, etc. Inasmuch as these rooms are largely used without direct light, a less desirable location can often be utilized, as well as for the ear, nose, and throat department.

As to the size of the operating rooms, the conditions which prevail in the regular private operating rooms should prevail in the eye, ear, nose, and throat operating rooms—if in a teaching hospital, then provision for observation stands should be made. The number of the rooms will depend, of course, upon the size of the departments. When artificial light is needed, a fixture should be selected which will give direct light and give off as little heat as possible.

There are a few general principles of hospital planning which apply to these departments, as well as all others, which should be standardized—that is, good air, good light, good food, freedom from disturbing noises from within and without, sound absorbing condition of ceilings, restful colors of walls and hangings, and the surrounding of the patient with a cheerful atmosphere.

(Lantern slides from the following institutions were shown.)

In the *Boston City Hospital* outpatient department, one entire section is devoted to the eye, ear, nose, and throat treatment, with a waiting room on each floor, connecting with each department. A carrier system takes history cards from the record room on the second floor.

In the *Grace Hospital's* new outpatient building, the eye clinic is on another floor from that of the nose and throat. Here the main waiting room is for all classes, with a small subwaiting, or history corridor, at each department.

In the new 250-bed hospital at *Tampa* the outpatient department provides the examination for the eye, ear, nose, and throat, and the operating department provides a special operating section for the eye, with two rooms and a special bronchoscopic room.

At the *Jefferson Hospital* at Philadelphia, I noticed the other day that an entire floor of the new building had been given over to bronchoscopy.

In the new hospital now being built for the *Hotel Dieu de Saint Sacrament* at Quebec, the eye, ear, nose, and throat departments are given a very large section of the outpatient clinic.

Another arrangement of this department is shown at the *Kingston General Hospital.* This department connects directly with the laboratory of Queens University Medical School.

WHY TEACH MENTAL NURSING?

Bernadette A. Mullin, R.N., Supervisor, Henry Phipps Psychiatric Clinic

THE importance of mental training in a nurse's curriculum cannot be overestimated. We have only to hear the reports of nurses who have had psychiatric training to make us realize its real value. Over and over again they tell us of the great help it has been to them in the understanding of their patients and the consequent successful handling of them. This importance is also emphasized by the increasing efforts of nursing schools throughout the country to establish affiliation with mental institutions.

Nursing deals with people, and psychiatry is nothing more than the study of people whose abnormality is brought about by exaggerated normal conditions and is not a vague mass of intangible and hopeless material as is generally supposed. It must be remembered that there are many levels of normality. The course helps to clear up the mystery attached to mental diseases. It broadens one's vision of humanity, thereby creating tolerance which comes only from understanding. It gives us tact, patience, and sympathy and develops a keener sense of observation, giving an insight into problems of lives and modes of living that perhaps have never been presented for our analysis. Not a few pupils have told us that they have been helped personally.

The average nurse undoubtedly possesses all of these attributes, but they certainly become sharpened by association with the human distress and maladjustment that is found in this class of patients. Regarding observation: In general nursing, we are to a large extent governed by subjective symptoms. If a patient has a pain, he tells us, and he tells us where it is located; he is able to make known all his other wants. But, in the care of the men-

tally sick, the symptoms are much more obscure and are for the most part objective so that the pupil must train her powers of observation in order to ascertain symptoms and to anticipate the patients' needs.

There is a tendency in general nursing to treat the disease itself, but in mental nursing we try to treat not only the disease but the patient as well. In medicine, surgery, etc., we deal with something concrete, something detached from the personality, such as organs and members of the body. But when we come to teach psychiatry a new field is opened for study and we learn to accept the individual as a whole, or psycho-biologically as Dr. Adolf Meyer terms it, and he stresses this union when speaking to his students.

In studying a mental case the various epochs of human life are reviewed—such as the periods of infancy, preschool and school years, adolescence, emancipation, adult life, and finally senescence; each has its own problems and revelations. In this way it is clearly seen that a pupil is able to blend life as a whole for she sees it in relation to the individual, to the family, and to the community in which he lives.

The sooner we realize that a patient has a personality as well as a pain or an ache, the sooner we will become more intelligent nurses and really merit the pedestal that has been dedicated to us. Many have this special regard for their patients, of course, but our aim is to give to the pupil, to start off with, that which it has taken years for others to acquire by experience and contact with people. I think it is brought about in full only by the special training that psychiatry affords.

Psychiatric training is helpful in every line of nursing and it is adaptable to whatever the work may be. If our nurses, through intelligent comprehension and broadened outlook on life, should do no more than help to dispel the crushing stigma that attaches itself so universally and persistently to unfortunate mental cases, and to overcome the fear of handling them, they will have rendered an immeasurable service to the community at large.

In the light of the advantages to the broad education of nurses offered by the study of psychiatry, it is safe to prophesy that the day is not far distant when this subject will be considered an indispensable adjunct to the nurses' curriculum.

A Layman on Preventive Medicine[1]

Judge A. C. Backus, Milwaukee, Wis.

I AM not a doctor, nor have I had any training in the science of medicine nor the art of surgery. I come to present a layman's viewpoint to the great medical profession and to various hospital organizations. There are millions of people throughout the country who are watching, encouraging, and applauding the splendid service that is being rendered by the doctors, nurses, Sisters, and the hospitals as necessary institutions for the preservation of the healthy, and the care and treatment of the sick. I am sure that the layman desires to encourage and help to the utmost, financially or otherwise, in the promotion of health in our respective communities.

Sickness and disease are among the oldest facts known to man. We are just now grasping their economic significance and the great economic losses due to them. In the past there seemed to be no other course but to bow the back and accept the burden. Epidemics were thought to be due to evil spirits, and individual illness, to sin.

We now see with new eyes since the basic work of Pasteur and the studies of Koch, made possible by the microscope and the new chemistry. A new world of health has been opened to us. We can trace out the causes of disease and eliminate them. We see our real strength as a nation coming from the health of the child. If we can add each year healthy, normal, educated units to the mature group of producers, we can overcome unrest, due to bad conditions of body and mind.

There is a mental hygiene of community life and of industry, and medicine in the years ahead must know its laws and then see that they are applied. Just what a human life is worth in dollars and cents depends on many factors. The annual economic loss to this country as a result of diseases which render the victims economic burdens, must reach several billion dollars.

The enormous loss of life in the United States is due in a large measure to conditions that are preventable. For example, according to the figures of Beard, the loss of life each year in the United States from communicable diseases is more than 500,000, while over 5,000,000 people during this period are incapacitated as a result of infectious diseases alone. These diseases, which the laity erroneously regard as a matter of course in the experience of childhood, play a large part in the development of tuberculosis, heart lesions, defective eyesight and hearing, and many other ailments.

Three million people in the United States are ill at any given time, and 1,500,000 die every year. It is estimated that 1,500,000 of our people are constantly suffering from preventable diseases. In the United States, there are always about 500,000 people ill of tuberculosis of whom about one half are totally incapacitated, and of whom 150,000 die annually. Three fourths of the tuberculosis from which Americans die could be avoided. Cancer claims about 100,000 victims annually. The degenerative diseases, as well as cancer, can in a certain measure be prevented or cured, if the condition is recognized early.

Poverty is the greatest problem of public health. More dispensaries should be maintained, which are easily accessible to the poor people of the community. The death rate of babies whose fathers earn less than $15 per week, is 256 per 1,000. Where the fathers earn $35 or more, the rate is 84 per 1,000. Economically speaking, this difference means a loss of life immensely greater than the most devastating epidemic.

Wisconsin and Milwaukee have been especially fortunate in reducing their infant mortality to the minimum. The number of deaths in infants in Milwaukee under one year of age was, in 1926, 1.8 per 1,000; whereas in 1927, the number thus far is 1.6 per 1,000. This condition is largely due to preventive measures which are being employed by our city health department and doctors.

Preventive measures must go beyond the individual. We should direct prophylactic treatment to the group and to society in general. We need to educate our neighbors as to the possibilities, and to assist in guiding legislation within natural limitations. Health is purchasable. A community can determine its own death rate. In the Canal Zone, under Goethals, one per cent per capita per day bought health, comfort, and success, instead of disease, suffering, and failure. In the same week the death rate in the Canal Zone was 3.61 per 1,000; while that in New York City was 12.61 per 1,000. The world is being

[1]Read at the first annual Hospital Clinical Congress held at the Milwaukee Auditorium, Milwaukee, Wis., June 20-24, 1927.

reconstructed, populations are shifting, disease is harvesting its millions, and there is the inevitable shift from insanitary areas. The ends to be reached by medicine are: Proper preservation of child life; reduction of sickness and personal injury; more hospitals and laboratories; more scientific research work; more prevention and correction of physical defects; promotion of bodily health and vigor; general education as to health regulation; prolonging of life and the years of active economic service. Distinct advances have been made along all of these lines, but we are in the beginning. In the United States the average duration of life is 45 years, as compared with 40 years in 1855; and 35 years in 1789. Medicine recognizes the burdens our economic life bears, and studies ways to bring about a reduction. When we find that 468 out of every 1,000 of our supposedly best young men, were defective and unable to take a fighting man's part in the late war, it taught us a much-needed lesson. Forty-seven per cent of our boys unable to meet an emergency! This is staggering in its significance to medicine. We find that we have been permitting many preventable causes to damage our one greatest human possession.

We have failed to protect our young, susceptible of correction, during their growing period, from bad environment, poor nutrition, and diseases, and have not used our full knowledge in handling those starting in the wrong direction. Twenty-four million school children are reported as being sick or defective. This is so stupendous that the layman cannot grasp its full significance. If this continues, what of the future generations to come, and what of the nation?

Healthy, robust, and vigorous children will build the nation of tomorrow. More preventive work, a greater interest of the people to assist in this great cause, more scientific research, more dispensaries, a community education—all of these are necessary to save the country. More attention should be given to helping the normal person to keep normal, than to the abnormal. Health is the nation's greatest asset. If Goethals was successful in reducing disease to the minimum—against all odds—in the Canal Zone, what can we not do in a community where the environment and surroundings are more wholesome and adequate?

Immediate needs throughout the country are for more hospitals, laboratories, more research work, and more dispensaries. We have thousands of hospitals in the country which have outlived their usefulness. They are old, insanitary, and antiquated. Many of them do not contain the ordinary requirements of a first-class hospital. They remind one of the old-fashioned, ill-kept hotel or lodging house.

People of the country should give freely toward the building, support, and the maintenance of modern, up-to-date, scientifically equipped hospitals, with complete laboratories and departments for extensive research work.

We may discuss problems that are in their nature economic, political, or otherwise. People are paying more attention to the possession of material things in life than to individual or public health. Billions have been spent in wars, and billions more will be spent in improving political and economic conditions. In comparison, very little has been spent for health—the greatest factor of them all—which means more to the welfare and well-being of the community, state, and nation, than anything else in life.

Too much praise cannot be given to you, ladies and gentlemen, who are doing so much for the community and state. Your self-sacrifices and services rendered will be highly valued by us, and more than appreciated by our posterity. The laity should join with you in every effort to help. There should be complete cooperation in this great service to mankind. Let all of us *"Give to the world the best we have, and I am sure the best will come back to us."*

The Hospital Exhibitors' Association

M. A. Higgins, M. A., Assistant Professor of Architecture, College of Hospital Administration, Marquette University, Milwaukee, Wis. Director of Exhibits, Catholic Hospital Association.

A QUIET but important development of recent years in the hospital field of America is the Hospital Exhibitors' Association, of which Mr. Thomas Rudesill of the Scanlan-Morris Company is president, and Mr. Frank Fisher of the Albert Pick Company is secretary-treasurer, and Mr. M. J. Heffernan, executive chairman. The membership of this association now includes a substantial majority of the more important manufacturers, supply houses, and jobbers serving the hospitals of the country, and representing, in their aggregate capital, hundreds of millions of dollars.

Prior to the 1920 convention of the Catholic Hospital Association held at the Catholic University of America at Washington, there was no such organization, each hospital firm covering its field and conducting its activities quite independently, also acting independently as an exhibitor in the various hospital conventions. The result of this independence was very unsatisfactory and injurious to all concerned, hospital associations as well as delegates and exhibitors, and occasioned much annoyance together with loss of good will and end results to both sides.

The Washington convention of 1920 saw the birth of this central organization of hospital firms and exhibitors, with the principal object being "to so conduct exhibits at the several conventions that the commercial firms displaying there may secure the respect and good wishes of the delegates." For this simple and clear objective and its definite and consistent pursuit, the Hospital Exhibitors' Association has grown to be, today, an important and influential group, with not only its original purpose clearly before it, but with the broader purpose of constant service to the hospital as its objective. Under the able and energetic leadership of a strong executive committee, it has cooperated with the Catholic Hospital Association, the American Hospital Association, the American Medical Association, the College of Surgeons, and similar professional bodies in raising the standards of conventions as a whole, and particularly of convention exhibits. It has laid down and enforced for its members rules of conduct and decorum at these conventions which have noticeably improved the dignity, beauty, and interest of the exhibits. It is now consulted each year by these associations in the formulation of convention plans, and renders very valuable assistance to them in securing the interest and cooperation of its members, both by exhibiting in the conventions and by personal cooperation with the associations.

The former attitude toward these commercial firms and exhibitors which regarded them as mere adjuncts to the hospital profession was a mistaken one, and is rapidly disappearing. These commercial firms have the resources and the engineering research facilities for careful and valuable investigations of equipment and supply problems. Their exhibits present each year the concrete result of these investigations and studies for the betterment of hospital equipment, and supply. Their representatives being

constantly abroad in the hospital field probably have a much wider contact with the hospital situation as a whole and are able to contribute to visiting delegates various viewpoints and reactions from different centers, so that the commercial exhibits become, as it were, a means for the annual exchange of hospital ideas.

In the Cincinnati convention of the Catholic Hospital Association, there will be over 200 of these commercial exhibits, representing every phase of hospital equipment, supply and research. Many of these corporations will be further represented by expensive and elaborate clinical sections portraying actual departments of the modern hospital.

The Hospital Exhibitors' Association has accomplished a great deal, not only for its members but for the hospital field as a whole. It has before it an objective of intense interest and value—to contribute, on the material side, to the perfection and advancement of the American hospital. It may interest the readers of this magazine to know who are the members of this association. They are accordingly listed herewith.

Members of the Hospital Exhibitors' Association

Acme International X-ray Co., Chicago, Ill.
Altro Work Shops, Inc., New York City.
American Hospital Supply Co., Chicago, Ill.
American Laundry Machinery Co., Cincinnati, Ohio.
American Sterilizer Co., Erie, Pa.
Applegate Chemical Co., Chicago, Ill.
Armstrong Cork Co., Lancaster, Pa.
H. W. Baker Linen Co., New York City.
B. B. T. Corporation of America, Philadelphia, Pa.
Becton-Dickinson & Co., Rutherford, N. J.
Frank S. Betz Company, Hammond, Ind.
Bruce Publishing Co., Milwaukee, Wis.
Burdick Corp., Milton, Wis.
Wilmot Castle Co., Rochester, N. Y.
The Century Machine Co., Cincinnati, Ohio.
Champion Machinery Co., Joliet, Ill.
Clark Linen Co., Chicago, Ill.
Colson Company, Elyria, Ohio.
Colt's Patent Fire Arms Mfg. Co., Hartford, Conn.
Connecticut Telephone & Electric Co., Meriden, Conn.
Continental Chemical Company, Watseka, Ill.
Crain Publishing Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Crescent Washing Machine Co., New Rochelle, N. Y.
Dougherty, H. D. & Co., Philadelphia, Pa.
Dougherty, W. F. & Sons, Inc., Philadelphia, Pa.
Davis & Geck, Inc., Brooklyn, N. Y.
J. A. Deknatel & Sons, Inc., Queens Village, Long Island, N. Y.
Dennison Mfg. Co., Framingham, Mass.
Denoyer-Geppert Co., Chicago, Ill.
DePuy Mfg. Co., Warsaw, Ind.
A. W. Diack, Detroit, Mich.
Duriron Co., Inc., Dayton, Ohio.
Eaton Rapids Woolen Mills, Eaton Rapids, Mich.
Edison Electric Appliance Co., Inc., Chicago, Ill.
Edwards Publishing Co., Toronto, Ont., Can.
Electric Solar Co., Inc., Chicago, Ill.
Fengel Corp., New York City.
J. B. Ford Co., Wyandotte, Mich.
General X-ray Co., Boston, Mass.
S. Gumpert Co., Inc., Bush Terminal, Brooklyn, N. Y.
Frank A. Hall & Sons Co., New York City
Hobart Mfg. Co., Troy, Ohio.
Holtzer-Cabot Electric Co., Boston, Mass.
Hospital Supply Co., & Watters Lab., New York City.
Hospital Topics & Buyer, Chicago, Ill.
Hospital Import Corp., New York City.
Huntington Laboratories, Inc., Huntington, Ind.
Hygienic Fibre Co., New York City.
International Nickle Co., New York City.
Jamieson, Inc., Chicago, Ill.
Jarvis & Jarvis, Palmer, Mass.
Johnson & Johnson, Inc., New Brunswick, N. J.
Henry L. Kaufman Co., Boston, Mass.
Kny-Scheerer Corp., New York City.
Leonard-Rooke Co., Providence, R. I.
Lewis Mfg. Co., Walpole, Mass.
Samuel Lewis, New York City.
J. B. Lippincott Co., Philadelphia, Pa.
Lyons Sanitary Urn Co., New York City.
MacGregor Instrument Co., Boston, Mass.
The Macmillan Co., New York City.
MacBeth Daylighting Co., New York City.
H. Maimin Co., Inc., New York City.
E. W. Marvin Co., Troy, N. Y.
The Massillon Rubber Co., Massillon, Ohio.
Melrose Hospital Uniform Co., New York City.
Meinecke & Co., New York City.
Merrell-Soule Co., Syracuse, N. Y.
Metropolitan Hospital Supply Co., New York City.
Modern Hospital Publishing Co., Chicago, Ill.
Ernest Monnier, Inc., Boston, Mass.
Morris Hospital Supply Co., New York City.
V. Mueller & Co., Chicago, Ill.
Ohio Chemical & Mfg. Co., Cleveland, Ohio.
Samuel Olson & Co., Chicago, Ill.
Onondaga Pottery Co., Syracuse, New York.
Palmolive-Peet Co., Chicago, Ill.
The E. L. Patch Co., Boston, Mass.
The Pfaudler Co., Rochester, N. Y.
The Permutit Co., New York City.
Physicians' Record Co., Chicago, Ill.
Albert Pick & Co., Chicago, Ill.
Postum Co., Inc., New York City.
Proctor & Gamble Distributing Co., Cincinnati, Ohio.
Prosperity Co., Syracuse, N. Y.
B. A. Railton Co., Chicago, Ill.
Randles Mfg. Co., Ogdensburg, N. Y.
Read Machinery Co., York, Pa.
Refinite Co., Omaha, Neb.
Rhoads & Co., Philadelphia, Pa.
Richey, Browne & Donald, Inc., Maspeth, N. Y.
P. L. Rider Rubber Goods, Worcester, Mass.
Will Ross, Inc., Milwaukee, Wis.
Royal Easy Chair Corp., Sturgis, Mich.
Sanitary Supply & Specialty Co., New York City.
Sanitarium & Hospital Equipment Co., Battle Creek, Mich.
Sanymetal Products Co., Cleveland, Ohio.
Safety Anaesthesia Apparatus Concern, Chicago, Ill.
W. B. Saunders Co., Philadelphia, Pa.
The Sayers & Scovill Co., Cincinnati, Ohio.
Scanlan-Morris Co., Madison, Wis.
F. O. Schoedinger, Columbus, Ohio.
Schwartz Sectional System, Indianapolis, Ind.
Seidel & Sons, Ad., Chicago, Ill.
John Sexton & Company, Chicago, Ill.
Simmons Co., Chicago, Ill.
Standard Apparel Co., Cleveland, Ohio.
E. R. Squibb & Sons, New York City.
Stanley Supply Co., New York City.
Stedman Products Co., So. Braintree, Mass.
Stickley Bros. Co., Grand Rapids, Mich.
Swarzbaugh Mfg. Co., Toledo, Ohio.
Thorner Bros., New York City.
Troy Laundry Machine Co., Moline, Ill.
Universal Hospital Supply Co., Chicago, Ill.
Vestal Chemical Co., St. Louis, Mo.
Victor X-ray Corporation, Chicago, Ill.
Vitaglass Corporation, New York City.
Vorclone Co., Milwaukee, Wis.
Waters-Genter Co., Minneapolis, Minn.
The Wilson Rubber Co., Canton, Ohio.
Wright Rubber Products Co., Racine, Wis.
Kirch Mfg. Co., Sturgis, Mich.
Westinghouse Electric & Mfg. Co., Mansfield, Ohio.
Wellbrock-Moreland-Deckin Co., Inc., New York City.
Bard-Parker Co., Inc., New York City.
Edward Lasker Co., New York City.
U. S. Slicing Machine Co., La Porte, Ind.
Eastman Machine Co., Buffalo, N. Y.
Paige & Jones Chemical Co., Inc., New York City.
Smith-Drum & Co., Philadelphia, Pa.
The Karr Co., Holland, Mich.
The Celotex Co., Chicago, Ill.
Kewaunee Mfg. Co., Kewaunee, Wis.
Jamison Semple Co., Inc., New York City.
National Lead Co., New York City.
The A. J. Miller Co., Bellefontaine, Ohio.
Faspray Corp., Red Bank, N. J.

NATIONAL HEALTH IMPROVEMENT IN 1927[1]

George T. Wight, Secretary and Manager, Association of Life Insurance Presidents, New York

While life insurance companies of the United States paid out in 1927 a larger amount than ever before in death claims, the ratio of deaths to the total number of individuals insured shows a substantial decline. The mortality experience of the companies not only demonstrates that the United States was much healthier in 1927 than in 1926, but also indicates that 1927 probably was the healthiest year yet experienced in this country.

The death rate among life insurance policyholders is found to have been 823.5 in 1927, as against 878.1 in 1926—54.6 fewer deaths among each 100,000 persons last year. It is interesting and also significant to note that the decrease is much larger among industrial policyholders than among ordinary policyholders although, of course, the industrial death rate continues to be much higher than that for ordinary policyholders. The industrial death rate for the companies reporting on that class of business, was 914.7 per 100,000 individuals for 1927, as against 984.1 in 1926. The death rate among ordinary policyholders was 680.5 per 100,000 for 1927, as against 706.0 for 1926. The reduction in the industrial death rate, therefore, was 69.4 per 100,000 persons, as contrasted with a reduction of 25.5 among ordinary policyholders. The year's decrease in deaths was due principally to the sharp reduction in mortality from pneumonia, influenza, diarrhea and enteritis, measles, and whooping cough, most of which had unusually high death rates in 1926. The greater reduction in the industrial, as compared with the ordinary death rate, is due to the fact that these diseases contribute more largely to the industrial death rate because of the much greater proportion of young lives among industrial policyholders.

[1]Extracts from a Report Transmitted to the Association of Life Insurance Presidents, January 14, 1928.

In comparing the 1927 death rate with that of the year before, it should be kept in mind that the 1926 death rate was well above the trend of recent years, and taken by itself as a basis of comparison, would unduly emphasize the savings of 1927. The real significance of the improved death rate of 1927 is gained when compared with death rates further in the background. Thus, it is encouraging to note that the 1927 insurance death rate per 100,000 persons was 12.2 lives lower than in 1925, and 4.5 lives lower than in 1921, which latter year was shown by Federal census reports to be the healthiest year prior to 1927.

By means of these insurance records, we are able to project the mortality curve through last year and gain approximate knowledge of the 1927 national health situation. On the assumption that the death rate among the entire population of the United States improved, throughout last year, to the same extent as among insured lives, for the first ten months of the year, it is estimated that the aggregate deaths in the United States during 1927 totaled 1,386,000 against 1,432,000 during 1926—46,000 fewer deaths, notwithstanding a material increase in population. But this is not the complete picture of the saving effected, for had the 1926 death rate prevailed during 1927, with the increase in population, there would have been 1,451,000 deaths. Thus there was an actual saving of 65,000 lives during 1927.

Returning to insured lives, the following table classifies the principal causes of death, showing decreased rates, as well as those showing increased rates, among ordinary and industrial policyholders combined:

	Death Rate Per 100,000 Persons		
Causes of Death Showing Decreases	1926	1927	1927 Increase or Decrease
Pneumonia	89.9	70.3	—19.6
Influenza	25.6	13.6	—12.0
Tuberculosis	83.8	77.9	—5.9
Bright's Disease	67.8	63.1	—4.7
Diarrhea and Enteritis	20.4	15.8	—4.6
Measles	6.6	2.3	—4.3
Whooping Cough	5.9	3.8	—2.1
Cerebral Hemorrhage	56.2	54.3	—1.9
Organic Diseases of Heart	128.3	126.9	—1.4
Scarlet Fever	2.0	1.8	—.2
Puerperal State	10.4	10.2	—.2
Homicides	6.3	6.2	—.1
Typhoid Fever	4.1	4.1	.0
Causes Not Specified	211.0	206.1	—4.9
Total	718.3	656.4	—61.9
Causes of Death Showing Increases			
Automobile Accidents	16.5	18.1	1.6
External Causes Not Specified	40.8	42.2	1.4
Cancer	71.1	72.3	1.2
Suicides	12.3	13.4	1.1
Meningitis	2.9	3.8	.9
Diphtheria	5.1	5.9	.8
Respiratory Diseases Not Specified	11.1	11.4	.3
Total	159.8	167.1	7.3
Grand Total	878.1	823.5	—54.6

Of the sixteen principal diseases covered by these insurance records, only four increased their toll of life during 1927, as contrasted with 1926. These four—cancer, meningitis, diphtheria, and respiratory diseases not specified—accounted for an increase of 3.2 deaths per 100,000 individuals. Against these relatively few increased rates, there was a very encouraging array of substantial decreases in the rates of deaths from pneumonia, influenza, tuberculosis, Bright's disease, diarrhea and enteritis, measles, whooping cough, cerebral hemorrhage (apoplexy), and heart disease. The decreases for these diseases range from 1.4 lives in the case of heart disease to 19.6 lives in the case of pneumonia.

One of the outstanding features of the 1927 record is that, while there is an increase in the mortality from cancer, the combined death rate from diseases common to old age—cancer, cerebral hemorrhage, heart disease, and Bright's disease—there showed a decrease of 6.8 lives per 100,000. Similarly, while there was an increase in the mortality for meningitis and diphtheria, there was a decrease of 9.5 lives in the aggregate death rate from the so-called children's diseases—measles, scarlet fever, whooping cough, meningitis, diphtheria, and diarrhea and enteritis.

It is a matter for serious concern that, notwithstanding the remarkable health record of the past year, there was an unusually large number of deaths from external causes which should be more readily subject to control. In fact, of the seven causes from which increases were recorded, three were external causes, which resulted in an increase of 4.1 deaths, nearly 60 per cent of the total increase in deaths from all causes showing increases. Against an insignificant reduction in the homicide rate from 6.3 to 6.2 lives, suicides increased 1.1, deaths from automobile accidents increased 1.6, and death from all other external causes increased 1.4 per 100,000 persons.

Fatalities resulting from automobile accidents continue a large and ever-increasing adverse factor in our national mortality picture. The deaths from this cause are revealed as one of the most serious obstacles to the country's life-extension efforts. From the present study, it appears that deaths, among the entire population, during 1927, resulting from automobile accidents, including those from automobile collisions with railroad trains and street cars—were approximately 25,460, as against 23,264 in 1926—an increase, in a single year, of nearly 2,200 in the loss of human lives. That deaths from this cause continue to increase at such an alarming rate, despite the untiring activities of the many agencies working toward an amelioration of this condition, can be accounted for only by the carelessness and recklessness of many automobile drivers and pedestrians and, often, by the wanton disregard of another's rights. The great waste of human life from this preventable cause continues to demand vigorous attention of public officials and is a challenge to every citizen to contribute toward improvement of this deplorable condition.

St. Eugene's Dedicates Nurses' Home and School

Institution at Cranbrook, B. C., Canada, Grows Rapidly

IN the ascent of the mountain of purgatory, Dante after a difficult climb reached a high terrace encircling the hill and sitting down he turned to the east remarking to his guide, "All men are delighted to look back"; and so the formal opening of the new home for the students of St. Eugene's School of Nursing will naturally carry the pioneer friends of the institution back in retrospect to a like occasion which occurred some thirty years ago when the first St. Eugene's Hospital was opened at St. Eugene's Mission, May 1, 1898 and their thoughts will be carried forward in a breathless manner as they recall the leaps and bounds with which that modest foundation kept pace with the ever-increasing demands of modern medicine from the beginning down to the present day.

Within the short span of its existence, St. Eugene's Hospital has been obliged to increase its capacity at three different times. When the institution was transferred to Cranbrook from St. Eugene's Mission in the early part of 1901 it doubled its capacity for patients and again in 1912 the rapid growth of the institution compelled the hospital management to add a rather spacious wing to the main building; even this outgrew its purpose within a very short time and the hospital has been taxed to its utmost capacity for some time. The removal of the student nurses to their new home will relieve the congestion somewhat, but it does not take much vision to see the need of an extension to the hospital and to see the place for it on the northeast side of the building to balance the opposite side and complete the original plan of the hospital. This is something for the community to be thinking about and planning as the next important event in the development of St. Eugene's.

The School of Nursing

The hospital administration recognizing its educational obligation to the community and desirous that the prevention of disease and the care of the sick be carried beyond the hospital walls and extend out even to regions too remote for the Sisters to reach, decided to open a school of nursing. The Sisters wished that through its graduates St. Eugene's Hospital might radiate its message of health and service far and wide regardless of color, creed, or condition. With this ambition apartments suitable for a school of nursing were fitted up within the

ST. EUGENE'S HOSPITAL, CRANBROOK, BRITISH COLUMBIA, CANADA.

hospital building and the first class of student nurses was organized in the fall of 1912 with five students. Sister John Gabrieb, B.A., R.N., now educational director for the schools of nursing of the Sisters of Charity of Providence in the northwest was appointed directress and with the fine cooperation of Doctors King, Green, and MacKinnon as instructors the school was put on a firm basis at the beginning. As the students multiplied and the course of study was gradually lengthened and strengthened to meet the educational requirements as they developed, it became necessary to have additional help and Miss Matilda Deidrichs, R.N., was engaged as resident instructor to assist the doctors and Sister Florida, R.N., the present directress of the school, in giving the number of lectures, recitations, and demonstrations outlined in the curriculum for an accredited school of nursing in the province of British Columbia.

If any enterprise is judged by the results obtained, then it is very evident that it is not altogether the size or location of a hospital that counts in judging the value of its school, but rather what the hospital has to give as a teaching institution. The students who have completed their education in St. Eugene's School of Nursing have, in every case, made as creditable a showing on provincial board examinations as any other students in the province, and these graduates are filling responsible positions both in the United States and Canada. The Sisters, the St. Eugene's Alumnae, and the student nurses are now looking to Miss Frances Chelmick, graduate of Class '25 to give a good account of her alma mater at the Mayo Hospital, Rochester, Minn., where she is to take a position as floor supervisor within the next few weeks.

Organization of the Alumnae Association

The graduates of St. Eugene's School of Nursing have become conscious that their standing in the profession is influenced by their standing in their school and wishing to strengthen the link that binds them to their alma mater they resolved themselves, very recently into a body that will henceforth be known as St. Eugene's Alumnae Association, which has for its purpose to unite and advance the interests of St. Eugene's graduate nurses; to stimulate professional progress; to foster ideals of wholesome service to humanity free from the taint of commercialism, and to prove their loyalty to their alma mater by carrying the spirit of St. Eugene's Hospital to every case that may come under their care and observation.

The New Home of the School of Nursing

The new home for the students of St. Eugene's School of Nursing is a very modern building having all the appearance on the outside of what it proves to be on the inside—comfortable and cozy. It is a three-story edifice well heated, lighted, and ventilated; each student is provided with a private room. which, judging from the generosity of the people thus far, it is safe to say will be attractively furnished. The first floor is entirely given over to parlor, living room, classroom, demonstration room, library, kitchenette, and office of the directress. The classroom instructor has an office on the second floor and the remainder of the building is taken up with bedrooms, lavatories, baths, sewing room, trunkroom, and laundry.

Due to the interest and cooperation of Doctors Green and MacKinnon in the advancement of the school and the education of the nurse the classroom in the hospital is well equipped with charts, manikin, skeleton, view box, Chase doll, steroscopic atlas of anatomy, and a good reference library, but the separate classroom and demonstration room in the new building will increase the efficiency of the equipment and give added inspiration to the work.

The classroom opens into a large cheerful living room where a homelike atmosphere invites relaxation and recreation and the spacious porch leading out from it promises no end of rest and enjoyment to the weary nurse during the heat of the summer months.

Much of the credit for the planning of this building particularly the splendid grouping of the rooms for efficiency and economy of time and material is due to Mother M. Nazareth, the present superior who wished to give to the student nurses all the comforts and refinements of a good home so conducive to the development of lofty ideals and the spiritual life.

Blessing of the New School of Nursing

Rev. H. P. Ehmann, O.M.I., officiated at the blessing of the new school. Rev. W. J. Cullinan, O.M.I., acted as deacon, Rev. J. Birch, O.M.I., subdeacon, Rev. Fathers Choinel, O.M.I., and Hartman, O.M.I., served in the sanctuary. The ceremony opened with solemn high Mass. The assembly hall was converted into a temporary chapel and the altar improvised for the occasion with its immaculate whiteness, its lighted tapers, and cut flowers made an appropriate setting for the gold vestments, the fragrant incense, the sweet strains of the music, and the awe-inspiring movements of the clergy. At the conclusion of the Mass Rev. J. P. Ehmann, O.M.I., in a few well-chosen words presented a picture of the ideal nurse and pointed out the influence of the home environment in the process of her development. This was followed by a procession of the clergy through the house and the aspersion of the rooms which completed the ceremony.

Reception and Official Opening

The Ladies Hospital Aid held a reception and served tea in the assembly hall of the new school of nursing from three to six o'clock on the afternoon of the dedication. The house was open to visitors and throngs of people wishing to show their good will and cooperation came to offer their congratulations to the Sisters and visit the new building, as well to take a cup of tea in the dainty tearoom prepared for the occasion. This was not altogether hospitality, however, as Mrs. R. J. Collins in the capacity of cashier met the visitors as they passed out and collected a neat sum of money in the course of the afternoon. Mother Mary Nazareth, superior of St. Eugene's Hospital and Sister Florida, the present directress of nurses assisted the ladies in receiving the guests. The exhibits in the demonstration room were in charge of the Sisters and nurses. The tearoom was in charge of the ladies and the student nurses.

Hospital Addition. St. Joseph's Hospital addition at Fargo, N. Dak., is nearing completion and plans are being made for the opening ceremonies. A surgical department, nursery, maternity rooms, and several private rooms will be included in the new unit.

Health Conditions on the Isthmus of Panama

Edgar A. Bocock, M.D.

SINCE the discovery of Pasteur about sixty years ago there have been many brilliant illustrations of the practical application of sanitary science toward the conservation of community health. In this organized health work the United States has easily taken the lead. It is safe to state, however, that considering its past history, the extraordinary surrounding circumstances, and the unusual difficulties to be overcome, that adventure in public health accomplished on the Isthmus of Panama during the past twenty-five years is most unique and unsurpassed. To regenerate a tropical swamp covered with almost impenetrable, evergrowing, rank vegetation; drenched constantly with torrential rains; wilted with enervating heat and plagued with myriads of disease-bearing insects, is an accomplishment highly worthy of the prowess and power of our great country.

Panama Now a Health Resort

In Panama, after nearly five centuries of pestilence and death, during which life was possible but never safe, there has been builded a new domain that is rapidly becoming known as a health resort, annually sought by hundreds of tourists seeking to evade the rigors of a northern winter and anxious to observe at first hand the magnificent transformation that has been wrought by effective organization and efficiently applied public health measures. Perhaps many of you have already visited this little gem of a country, separating the two great oceans and joining the western continents, but if you have not, there is in store for you a demonstration of practical sanitation and wholesale disease control, no greater than which has been accomplished in the history of the world.

For years the Isthmus had been dead to commerce, shunned by travelers and abandoned to the mestizos and negroes living there until in 1849, stimulated by the gold discovery in California, a trans-Isthmus railway was commenced. So terrible was the mortality during the construction of this project that it has been described by saying that for each tie placed in the road bed a laborer's life was lost. Then the age-long dream of navigators was taken in hand by Ferdinand de Lesseps in January of 1881. The failure of the French Canal Company is a tragedy unequalled in history from the standpoint of finance and even more so in the ravages of tropical diseases. During the eight years of the French attempt, yellow fever, dysentery, typhus, and malaria carried off nearly twenty thousand employees. The mortality frequently arose above 100, occasionally to 130 and 140, and in September, 1884, it reached the appalling figure of 177 per thousand working people.

What a Contrast!

When the American forces arrived in Panama to commence the canal, fifteen years after the French had abandoned it, these conditions had not improved and health conditions were indescribable. Had the French sick rate prevailed after the Americans began work we should have had about 13,000 men constantly in the hospital and would have lost about 4,000 employees during each year. Since ten years were required to build the canal this would have meant the sacrifice of 40,000 people and is equivalent to saying that the canal would never have been constructed.

This, then, was the colossal task that faced the American forces upon their assumption of control of Panama in 1904. It was their objective to convert Panama into a healthy region; to reduce the death rate from the appalling ratio of the old unhealthy régime to that of a healthy community; of initiating such sanitary measures as would permit the citizens to reside in Panama in comfort and without danger to themselves and families. The completely successful manner in which this program and the new public health for Panama was accomplished is now a matter of history, and today, twenty-two years later, so excellent are health conditions there that one may live in the Republic with equal assurance of being as safe from communicable disease as if living in Colorado Springs or Denver. No longer is the description "The White Man's Grave" applicable to Panama, but it is fast becoming a popular pleasure resort as well as a gigantic filter for the removal of disease from the circulation of maritime commerce. Instead of proving a source of danger to the Orient, as was predicted in 1914, by facilitating the dissemination of communicable tropical diseases, it is now a great and effective sanitary outpost protecting the world against other infected ports.

First a Health Department

The first year after the arrival of the Americans on the Isthmus was devoted to organization of a health department and preliminary surveys of the sanitation problem. Scarcely had they begun work, when a few cases of yellow fever occurred and a rather serious epidemic took place in 1905. This created a panic, and only the lack of steamship accommodations prevented the flight of the entire force from the Isthmus. In 1906 one case was diagnosed as yellow fever in Colon, but as to its true nature there has been much doubt. With this possible exception, not a single case of yellow fever has originated on the Isthmus since 1905. If one were to be imported now, Aedes Aegypti mosquito breeding is so well controlled that it would be impossible for the disease to spread to the extent of an epidemic. Vigilance cannot be relaxed however, since, while only three cases were reported in the Americas during 1925, a new outbreak occurred in Parahyba, Brazil, in April, 1926. Even as this report is being presented occasional cases are being sporadically encountered in the interior cities of Northern Brazil. However, thorough surveys made by the International Health Board of those countries bordering on the Pacific from Mexico to Chile would indicate that the disease has been successfully controlled and the optimistic hope enlivened that the western hemisphere may be declared free from yellow fever when the last cases in Brazil have disappeared. What a contrast with conditions 25 years ago, since when the **Leptospira icteroides**, causative organism of yellow jack was discovered by Nagouchi in 1918, thus providing a definite means for diagnosis and possible immunity; the part in the transmission of the disease that is played by the female Stegomyia discovered in the spring of 1900 by Walter Reed and the almost complete eradication of an epidemic disease that for hundreds of years had spread terror and death from Montreal to Montevideo. With its disappearance from the Americas only one stronghold of infection remains, located on the west coast of Africa, and preliminary studies are now in progress looking toward the attempted eradication of this final focus.

Malaria Under Control

From the very outset of a healthy regime in Panama, malaria control has been taken as a measure of sanitary efficiency. While yellow fever was swift, deadly and the gravest disease as far as the death rate was concerned, malaria was always the greatest cause of non-effectiveness and invaliding. In 1906 the wards of the hospitals were crowded with employees prostrated with this greatest of all causes of incapacity in the tropics. The admission rate then was 821 per 1,000 while during the last year, 1925, the rate was .17 per 1,000. In his annual report for last year the Chief Health Officer of the Canal Zone says:

"While the figures naturally vary somewhat from time to time, it should be noted that there has been a practically constant residual rate for this disease during the past nine years, the only marked deviation being a rise to 31 per 1,000 in 1919, which occurrence is explained by the fact that in 1919 many infected native Panama laborers were imported into the Zone to take the place of striking West Indian employees. As in the past, much malaria developing in the Canal Zone was contracted outside the sanitated areas of the Zone. Two employees died from malaria. Both were employed by the dredging division, working at night in parts of Gatun Lake adjacent to the unsanitated areas. One was a colored West Indian, the other a white American who refused to see a physician until nearly moribund."

The care with which the malaria problem is watched and combated is illustrated in the foregoing sentences. An official mention is made of two deaths occurring from malaria during a year on the Canal Zone. How little notice these would have warranted in 1906 when out of each 1,000 persons nine succumbed to the disease.

During the first six months of 1926 only 671 cases of malaria have been reported, or the lowest number for

any half year in the past ten years. However, the mosquito control measures must continue unabated, because in a tropical country the jungle is ever ready to push back, overcoming all the efforts of sanitary science. And the problem is a stupendous one in Panama since there is a high rainfall rate nearly every day for nine months of the year, and if a cow leaves a deep footprint in the soggy ground several inches of water immediately ooze into it, and at once a perfect breeding place for the Anophelene is formed. A large part of the Isthmus is a low-lying alluvial plain; swamps and marshes abound; while artificial water containers formed in the luxuriant vegetation by the vagaries of nature cause an unlimited extent of breeding grounds to be constantly available. Furthermore, among the native population with their illiteracy, poverty, nomadic existence, inherent indifference and primitive modes of life it is practically impossible to control the carriers and reduce the morbidity rate to a desired level. So, while greatly improved, it will never be possible to eradicate malaria with the same degree of complete success that has attended the attack on yellow fever.

Draining the Swamps

At the present time antimalarial measures are carried on with equally as much vigor as in 1906. However, the tendency is now toward accomplishing permanent sanitation in the form of elimination of mosquito-breeding areas rather than by routine temporary measures. To this end large swamps have been drained or filled by hydraulic means, while open-earth ditches, requiring ceaseless vigilance and labor at great expense, have been supplanted by subsoil rock and tile drains. During 1925-26, instead of digging hundreds of lineal yards of open-earth ditches, sixteen and three quarter miles of subsoil tile drains were laid, four and one half miles of concrete bottomed drains were placed, but only three miles of new earth ditches were built. This was the largest program of permanent work done in any two years on the Isthmus, and when it is considered that the rainfall for June, 1926, was 31.2 inches it will be obvious why vast stretches of permanent drainage are so necessary.

The jungle has been cleared for at least two miles back from all towns and fruitful gardens, lawns and lovely grounds are now taking its place. It has been proved that the **Anopheles Albimanus** will fly at least that far, with the result that the early idea of General Gorgas of clearing for a hundred yards has long since been replaced. All houses occupied by Americans or employees on the Canal Zone are screened so carefully that the buzz of a mosquito is very rare. If mosquitoes are discovered in a home, the health department is notified, just as police headquarters would be called if a burglar were discovered in a house in the United States.

Very little oiling of water-holding areas is now practiced in contrast with the sixty-five thousand gallons formerly used monthly. Instead, in each district an experienced larva hunter searches carefully for breeding places and oil, mixed with phenol soap emulsion, is only used when malaria-carrying wigglers are found. In place of this largely obsolete measure there is now used to a certain extent the more economical, and more simply applied paris green that was advocated as a mosquito larva poison in 1921 by Barber of the United States Public Health Service. This material becomes efficacious by sprinkling breeding areas with a powder of ninety-nine parts of road, or other inert dust, and one part paris green. Interesting experiments were begun in 1923 by King in dusting large swamp areas from airplanes, and these have proved that the outlook for malaria control through this antimosquito measure is rendered definitely more encouraging than previously.

Treatment for Malaria

Each case of malaria is reported and studied as to its probable source of infection. Houses are searched for the presence of the offending causative agent. When discovered, the variety is identified, and it is generally found that the invader is of the **Albimanus tarsimaculata** group. This is the most common enemy on the Isthmus breeding nearly always in fresh or slightly brackish, but clean, quiet water where sufficient sunlight can penetrate to cause the growth of algae; traveling long flights and persistently seeking human beings; spending hours locating an opening through a screen. This one group of mosquitoes alone deserves all our efforts to make Panama free from malaria.

Quinine prophylaxis is infrequently used on the Isthmus at the present time except by field parties, prospectors or others constantly exposed. Recent studies by York and Macfie would indicate that quinine given to a person exposed to malaria will not prevent an infection. However, if the dose be taken in sufficient quantities for from ten to fourteen days after infection it will prevent the occurrence of the symptoms of malaria. It is therefore considered useless to give quinine to prevent an infection, and as a prophylactic it would be justified when there is a high percentage of infection and when large numbers of infected mosquitoes are present.

A word as to the usual treatment of malaria followed on the Isthmus may prove of interest. For the average individual with a moderately severe, acute attack, forty to forty-five grains of quinine bisulphate or bihydrochloride, divided into three doses, is given daily and this treatment continued until the temperature is normal. The dosage of the quinine salt is then reduced to thirty grains daily and continued for from seven to ten days' time. Usually then Bass's standard treatment of ten grains of quinine daily for a period of two months or longer is followed, according to the severity of the infection. Recurrences after this régime are rare. In the acute, malignant case of malaria intravenous or intramuscular injections of quinine salts are used freely. A neutral or very faint acid preparation is used in which the mixture contains one part of quinine to ten to twenty parts of diluent. As much as fifteen grains of a quinine salt is given in this way and usually repeated in from three to four hours until four injections have been given. Sir Leonard Rogers recommends cinchonicine bihydrochloride for intramuscular injections.

Haemoglobinuric, or Blackwater fever, regarding the etiology of which there has been so much controversy but no definite decision, is rather rare on the Isthmus but the mortality from this condition, when occurring, continues to about 27 per cent. It is now quite generally conceded that it is associated in some way with repeated and intense malarial infections, usually lasting for years, and that the **Plasmodium falciparum** is the organism involved in about 85 per cent of the cases. In Panama, as in other tropical locations where observations have been made, it is found that Blackwater fever occurs in a ratio closely proportionate to the prevalence of Estivo-autumnal malaria. Of course this conclusive observation is subject to several qualifications since at least two other very convincing theories regarding the disease have been advanced. Blackwater fever rarely ever occurs among the Panamanians of mixed blood or the negroes but usually occurs among the white natives and foreigners in the tropics.

Dengue and filariasis, two other diseases commonly carried by the mosquito, do not thrive and are rarely encountered in Panama. An occasional case of the former is brought in on shipboard and a few cases about which there was some doubt have developed locally. Neither does filariasis cause any grave concern, since only three or four cases are reported annually. Apparently this disease, which, like dengue, is transmitted by the **Culex quinquofasciatus**, is not as easily contracted as some of the other mosquito-borne diseases and there is no proof of its spread on the Isthmus.

Typhoid Now Rare

Typhoid fever and the various types of dysentery were very prevalent on the Isthmus in the earlier part of the American occupation. In 1907 the admission rate for typhoid fever was 14.45 per 1,000, while in 1925 only fifteen cases of the disease were reported with two deaths. The majority of these cases occurred in seamen, only seven cases being natives of Panama. The protozean cause, mode of conveyance in cyst form, and the treatment of amoebic dysentery have been well established. The incidence of the disease and the mortality caused by it on the Isthmus have been markedly reduced. In 1906-08 out of 170 patients admitted to Ancon Hospital with this disease 51 died, while on the United Fruit Company's plantations throughout the tropics in 1925 of 420 admissions only seven died due to the use of emetine introduced by Rogers, in 1912, supplemented by bismuth subnitrate in heroic doses. For the past ten years the standard treatment of amoebic dysentery quite generally

followed on the Isthmus has been to give one half to three grains of emetine a day until nine or ten grains have been given. Concurrently the administration of 180 to 200 grains of bismuth subnitrate in a glass of water every three to four hours is carried on and gradually reduced as the stools become formed and lessened. This treatment combined with a generous milk diet has been found to give uniformly good results in grave cases. Relapses rarely occur when the bismuth method of treatment is properly carried out, which may require two or three months' time. As contrasted with **E. hystolitiea** infection, bacillary dysentery is a fairly common disease on the Isthmus. It is frequently found in children under five years in which the mortality is high. It is considered that it is most commonly transmitted by carriers. Since a considerable proportion of the cases are wrongly diagnosed, the hospitals on the Isthmus make routine stool cultures upon all cases of enteritis and enterocolitis.

Of course the fundamentally important measure in controlling the dysenteries and typhoid in Panama has been the furnishing of an abundant supply of pure water and the protection of the foodstuffs from contamination. The first has been done by the installation of modern filtration plants of mechanical type, combining aereation with precipitation and later chloriation, that supply safe water to the Canal Zone and the important cities of the Isthmus. All markets in which foodstuffs are sold are rigorously supervised by the health department of the Canal Zone. This insures protection against contamination and prevents the spread of fly and filth-borne diseases. With a modern water and sewerage system the danger of filth-borne diseases is no longer a grave one. Also, in view of the rigid measures enforced for garbage and manure disposal, flies are at a noticeable minimum as compared with any part of the United States in summer, with a consequent lessening of fly-borne diseases.

Other Diseases

A few cases of smallpox continue to appear throughout the years as a large part of Central America outside of the Isthmus is infected with this disease and contacts are continually entering the cities in spite of a vigorous quarantine. Vaccination is compulsory in the larger towns and the government of Panama maintains a staff of full-time employees constantly engaged in vaccinating the public and controlling small outbreaks. No cases of smallpox have occurred among the Americans on the Isthmus for the past fifteen years and no recorded deaths among the natives since 1907.

An occasional case of leprosy is discovered on the Isthmus and to care for these people a leprosarium having about one hundred inmates is maintained by the United States. Last year twenty-two new cases were detected and admitted to the colony. These people are of various nationalities living on the Isthmus but under existing law every case detected, irrespective of origin, must be at least temporarily committed until repatriation or other suitable disposal may be arranged. During their commitment all suitable patients are given intensive treatment for their leprosy. Intramuscular injections of the ethyl esters of chaulmoogric acid, ethyl esters of codliver oil and sodium chaulmoograte are still being used on selected cases in order to attempt to determine more definitely their relative efficacy. From the results obtained on the Isthmus, as elsewhere, it is reasonably well established that about 50 per cent of the early cases, but not more than 25 per cent of those from three to fifteen years duration, will lose all symptoms of leprosy under the new chaulmoogra treatment. However, it is still too early to herald this drug as a definitely specific cure. Certainly the progress of the disease can be arrested if taken in time and a large number of cases at least clinically cured, but the frequency of relapses calls for the greatest caution in claiming permanent results.

Precautions Against Bubonic Plague

The danger of an invasion of bubonic plague from the west coast of South America looms ever threateningly over the Isthmus of Panama. It is borne in mind that plague exists as an epizootic among rats for a considerable time before spreading to human hosts, therefore vigorous efforts are directed at the rodents. Since the last two cases in 1905 and the vigorous antirat campaign that followed, not a case of human or animal plague has occurred. However, vigilance is not relaxed. The docks of the terminal ports are models of ratproof construction. Ratproofing of all new buildings is insisted upon, and every effort is made to store material and protect foodstuffs so as to discourage rat harboring and propagation. Old buildings found to be rat infested and dangerous are condemned and demolished. Poisoning with barium carbonate is resorted to in stores and warehouses. Trapping of rats as an index of their prevalence is carried on daily in localities bordering the waterfront. The catch is autopsied at the Board of Health Laboratory for possible B. Pestis infection. With these antirat meausres, Bubonic Plague endemic on the Pacific Coast of South America since 1902, has little chance to gain a foothold on the Isthmus. Nevertheless, the quarantine service is constantly on the alert to prevent its introduction. The usual requirements of breasting off by a floating fender so a vessel does not touch the wharf and the use of rat guards upon cables from the ship to the dock are carried out so that rodents cannot come ashore. But greatly more important is the disinfection of ships from unclean ports by periodic fumigation for the destruction of rats. This is done with cyanogen chloride which has been proved to be the most economical, efficient, and readily applied form of material for use in the elimination of rodents. What has been done for yellow fever can be done with Bubonic Plague which is probably now the greatest disease menace facing the Isthmus. No steps are spared looking toward its prevention.

Diseases Same as of Temperate Zone

With the important diseases that formerly decimated the population of Panama well in hand it is interesting to consider the conditions causing the greatest mortality at the present time. It is even more striking to observe that they are approximately the same diseases that head the list in temperate zones even possibly about the same as in Colorado. For 1925 the six diseases causing the highest number of deaths were:

Pneumonia, broncho and lobar	3.97
Tuberculosis, various organs	3.20
Diarrhoea and enteritis (in children)	1.74
Nephritis (acute and chronic)	1.39
Organic diseases of the heart	1.29
Cancer (various organs)	.84

All other different causes of mortality brought the total rate up to 18.92 per 1,000 population, which compares very favorably with New Orleans, Charleston, Baltimore, Paris, or London and is much better than several other northern cities of a corresponding type of population. Among the natives, pneumonia and tuberculosis cause more deaths than any other conditions. These diseases are exceedingly common and fatal in the negro, the Cholo Indian, and the Mestizos who are in poor physical condition from repeated attacks of malaria, defective living conditions, and who seem to have little resistance to pulmonary infections.

Venereal diseases and syphilis are likewise exceedingly common among the native Panamanians. While rarely reported as the primary cause of death, there is no doubt but that this condition is the underlying cause of a large part of the organic heart diseases showing mortality. Nephritis is more often seen in the West Indian negro than the Spaniard, and it is no uncommon occurrence in a tropical hospital to see a male ward largely filled with patients presenting all the characteristics of Bright's disease. Of course the mortality in this group of cases is high.

Native Diseases

Yaws or **Framboesia tropica**, and tropical ulcers frequently due to the **S. Nefringeus** are of considerable importance among the native population. Both require considerable hospitalization for their cure, although yaws responds to salvarsan in a highly satisfactory manner. Pellagra is relatively infrequent on the Isthmus but tends to be more common in the negro than in the Panamanians and shows about the same mortality as in other localities.

Hookworm is very prevalent in the interior of the country, as many as from 40 to 60 per cent of the people being infected. The International Health Board is doing a monumental work in combating this condition by education, privy construction, and actual treatment. During 1925 a total of 20,595 persons were treated at

least once and the building of 4,654 latrines was brought about by this organization. Thymol, oil of chonapodium and carbon tetrachloride are being used to great advantage in the uncinariasis campaign.

The acute exanth amata in the tropics are relatively uncommon and very mild when they do occur. When scarlet fever is introduced from elsewhere it seems to lose its virulence immediately and the disease rarely shows any serious complication in the few contacts who develop it. Likewise, measles and chicken pox are only infrequently encountered, rarely ever assuming the proportions of an epidemic.

Marvelous Public Health Work

That a marvelous piece of constructive public health work has been accomplished by the United States Government on the Isthmus of Panama cannot be contradicted. So great is it that there is perhaps a temptation to exult unduly over what has been done. However, I believe that the physicians of America may thrill with a modest but well warranted pride when we consider that this mighty project was made possible only by a member of our profession, Dr. William C. Gorgas; he who gave every atom of his strength, his training and his experience, should rightfully have a place with the other pioneers who have forged the history of medicine. To him the civilized world owes an acknowledged debt of gratitude. Not only has he made it possible for commercial intercourse to take place readily between nations hitherto far removed, but there on the Isthmus of Panama he has furnished to the world a demonstration of the strength of a mighty nation, not in conquest or the annexation of additional territory, but in the greatest adventure for the benefit of mankind that had ever before been attempted.

Well may the official seal of Panama Canal bear the motto "The Land Divided, the World United."

A FLY'S VIEW OF THE OPERATING ROOM[1]

Well, I'm in a fine position—I am. I'm simply exhausted from trying to escape that fly swatter. I've tried three times to fly out of the doors, but that doesn't even seem to please her. Of course it isn't as if this is something out of the ordinary for it isn't. I'm chased every day of my life and I'm really getting quite accustomed to it. You know this room isn't a bad place, the ceiling is so high that it is impossible for Sister, Er-ah, now what was that name, oh yes—Sr. Olga, to track me. I just rest up here an hour or so and then if I begin quite unostensibly I can get pretty close to her before she commences at me again. You see I've lived here for about two weeks now, so I'm really quite well acquainted.

Must be going to do something again. I see Sr. Cosma is "scrubbed up." Oh yes, I use such intimate terms; s'pose I really ought to explain as quite probably you uninformed people will be at a loss to know what I'm talking about. Well, a nurse who is "scrubbed up" has just previously gone through a systematic scrubbing for fifteen minutes and then she dons rubber gloves that are in some pink stuff, (cyanide, I think they call it, anyway I'm a little leary of it. I'm too old a fly to get caught on these bright colors). That is, that's the way the nurses do it. The doctors sure have it snappy, as soon as one enters the room, the "scrub nurse" (she assists Sr. Cosma) holds his gloves. (Right one first I think, at least the nurse got quite a glare yesterday when she reversed the order unconsciously. She's a new one on the job; they change every three weeks you know and they're pretty "fussed" the first few days.) Then she hastily hands him a sterile gown. Now he is ready.

Um-hm, here the patient comes. Well, now that is a shame, some poor little youngster—wants his mama and they won't let her in. It's too bad, but you know they really can't. Most everything in this room is sterile—the basins, the tables, why even the stands are draped with sterile sheets and just imagine what havoc the mother might raise coming in here and bumping up against everything. Of course, she can't see it that way, probably never will. She's been seeing some more of those movies that show the whole family in the operating room, etc. I know, 'cause before I flew up here I stuck around the Adler quite a bit, but I got so tired of these four-arm grappling scenes lasting for two reels, that I came up here on the top of Dr. Mason's car one morning just to see something real.

Here comes the, what do you call them? Oh yes, the anesthetist. She is the nurse that gives the ether. You know that's pretty strong stuff. I went investigating the other day and after I'd crawled around the cork twice I was just about done for. Wait until she puts the mask on that youngster, then he will cry. Poor kid, it's all so new and strange and he doesn't quite understand what it's all about. Just frightened stiff, but then she is talking to him and telling all the things as they come. She has put the towel over his eyes and they've strapped him down and she's beginning to drop the ether. She's telling him a nice little story, guess I'll have to crawl a little nearer and listen in. The Sisters and nurses are so busy getting things ready I'm sure they'll never notice me.

Ah ha! the doctors. Wonder whose operating? Here comes Dr. Doerge and Dr. Mason, another one? Oh sure, they couldn't get along without the intern. He's quite the, (what's that slang phrase they use? Oh yes, "cat's whiskers), around here. McCormick is his name I guess, but they all call him "Mac." He isn't very large, but then he's Irish you know, so he can make up for that. The doctors are around the table and Sr. Cosma just pulled up the nurse's instrument table and has handed Dr. Doerge an alcohol sponge and the knife.

Wish I could get a little closer. Guess I'll wait until Sr. Olga goes out to get some more sterile H_2O and then I'll sneak over on that rod hanging down from the lights. Ah—here's my chance. Say this is fine. I can see everything at close range. They are down through the skin and the nurse is handing the doctor some wet towels and they're clamping them on either side of the incision and then folding them back. What's that funny-looking stuff? —Oh, that is the omentum, kind of yellowish, fatty-looking tissue, it hangs down over the intestines.

S'pose you think I'm a pretty smart fly, but you see I keep my eyes and ears (of course I have some) open.

Dr. Doerge is examining the appendix. Bad one too. "Linen, please"—they're making a purse-string suture around it. "Forceps"—they attach one to each end of suture. "Crusher"—say that is a crusher too. It is a forcep with a large, heavy, curved end and WOW, I'd hate to be in that appendix's place. They're putting another forcep (a small one) right next to it. "Knife"—get out of the way there. And they've tossed appendix, forceps, knife and everything into a sterile waste basin at the foot of the table.

"Sponges, Sister"—Sister gets some from under a sterile towel on the big instrument table, dips them in hot water and hands them to the nurse and she is giving them to the doctor.

Say, that's pretty neat. One doctor picks up the purse-string suture, pulls it tight with one hand, with the other he picks up the forcep, inverts the end of the intestine, and slips it out without touching anything and throws it in the waste basin. Everything else is apparently all-right for doctor just called "catgut"—they're sewing up.

"Sponge count?"

"All right, doctor."

Well I'm glad that's all there is to it. I was feeling pretty sorry for the little fellow. He'll be feeling fine again in a couple of weeks.

The nurses are beginning to carry out the extra suture jars and dirty basins, they've always got something to do. The doctors are through and the intern and scrub nurse are finishing the sewing. Believe me when they get that little chap downstairs, I'll go down and see how he is. I could fly around a little, perhaps he would have some candy lieing around, haven't had a taste of anything sweet for a long time and my feet aren't so awfully dirty, so I don't think I'd hurt it much.

Whew! it's getting warm in here. Maybe it's all that ether, I feel sort of wabbly—I don't believe I can hang onto this rod much longer—wonder if I can get to the window. Oh————

Sr. Olga—"Oh my-y-y-y-y, I've swatted that fly."

And this is the end of our fly. Poor little creature, he'll never get a chance to taste that child's candy or to wonder about any other operating-room scene. It is rather a tragic ending but flies are born to such experiences as we are born to ours. So farewell, little fly, and may you go to your fly heaven in peace.

[1]Reprinted from "The White Cap," the annual published by the class of 1927, St. Joseph's Hospital School of Nursing, Marshfield, Wis.

The Medical Missions

The Catholic Medical Mission Board is affiliated with the Catholic Hospital Association.
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MATERNITY CHARITIES ON OUR MISSIONS

Dr. Margaret Lamont

The Work of Others: What, exactly, are we Catholics doing in the Orient in the way of maternal charity and child welfare? It was really only from about 1800 that any one attempted anything in the way of organized medical relief to Orientals.

In China the first honors belong in the matter to Dr. Robert Morison who held the Jesuits' view that astronomy was one way to the hearts of the Chinese. Morison, however, came to China two centuries later than Pere Ricci and added medicine to his missionary armory. After his pastoral training he spent two years walking the wards of St. Bartholomew's Hospital during the forenoons, and walking down the right bank of the Thames in the afternoons, to spend the greater portion of the night at Greenwich Observatory. He had to cross to New York in order to obtain entrance to China at Canton. He spent long years secretly learning the language, and then was joined in the beginning of his good medical work by a doctor of the East India Company's Service, a pious man, though not a Catholic. From this beginning has sprung the immense and influential medical-mission work of the Protestants in China, the crown of which was added just before the war in the Rockefeller Foundation of the great new hospital and medical school of Pekin. This last shows a sort of neo-Catholicism inasmuch as it has the word "Union" prefixed to its official title. It is staffed by any and all Protestant denominations whilst its patients and students are drawn, according to the fine medical tradition, from the population at large without distinction of race or religion. So great is its influence that it has been thought necessary to found a Catholic college hard by, in the hands of American Benedictines, not indeed as a medical and rival college, but as a means of approach to students and a witness for the Church.

Now, in China there is no **Purdah system,** properly so called; and at first those responsible for medical missions thought there was no need to make any special arrangements for women in China any more than they did in Africa. The north of Africa was not in Protestant hands, until British influence began to predominate in Egypt and the Sudan in the latter decades of last century, but in 1891, I met in Dublin a Baptist woman doctor, who had worked at Tangier (still independent) some years and was taking post-graduate courses in obstetrics and ophthalmology preparatory to returning to Tangier where she has worked all her life and where she may still be working.

Women Doctors: The first medical woman to qualify was Dr. Elizabeth Blackwell, who divided the honors. Born in England she came with her family to the United States and qualified in medicine, pioneering the way about 1859. She immediately went over to England and joined the brave women who were pioneers in this movement there, obtaining a qualification about the same time as Dr. Elizabeth Garrett Anderson whose name now adorns the Women's Hospital familiar to Americans arriving in London at Euston from Liverpool. Not content with this, the intrepid Anglo-American Lady crossed to Paris and spent months at the great Paris maternity hospital, which, curious enough was then more like a cloister or a zenana than a modern maternity school, the students being rigorously interned, like the patients, presumably for fear of puerperal fever. This was before the discoveries of Pasteur and Lister and Simpson and the work of the great American Kelly had begun to make the curse of Eve lighter, at least for the women of the West.

The Missionary Share in the Medical Movement: There cannot be the least doubt that the huge and rapid advance in America, England, and Scotland of this medical women's movement was chiefly due, (1) to the British possession of India and the seclusion of its women, and (2) to the immense progress of the Protestant missionary movement, consequent largely on the evangelistic spirit of the two English leaders, Wesley and Charles Simeon of Cambridge. The High Church movement (though it began about 1880 and has fine work to its credit) had yet its spurs to win when these two Evangelical leaders and such men as Drs. Guthrie and Chalmers and McCheyne in Scotland and the American Judson were burning with zeal to spread their new-found Gospel to the heathen world.

Married Missionary Doctors: It is a mistake to think that all Protestant missionaries marry. The pioneers hardly ever were married when they set out. Dr. Morison married in China and the American Judson had a wife as zealous as himself. They sometimes went to wild countries where women were out of the question. Among ourselves there are still many mission stations where the help of nuns is out of the question, though of course, the world was getting daily safer for women till the fatal date of 1914 reintroduced much of the barbarism in the East, at least India, Mesopotamia and Palestine being the safest today. Besides (1) what the missionaries saw of the tragedies among their women converts (2) the advances being made at home by devoted medical men, and (3) the experiences of the often missionary-hearted members of the East India Company's medical service, is the important factor of the mutiny of the Indian troops at Meerut, Delhi, Lucknow, and Cawnpore. These are the names of the four towns of most tragic memory, hardly breathed today by white or brown, but not to be forgotten so long as the fatal well at Cawnpore bears its memorial inscription, "These are they that came of great tribulation." This mutiny was largely due to the difficulty always existing of one race comprehending another which it rules. There is no country even today more difficult for the Western to understand than India. In my opinion (and I have spent my entire life in studying, first as a child among its elders, then, as a doctor, the ways and the thoughts of the non-Christian world, in India principally but also in China and Africa together with some of the Moslem lands) India takes more understanding than any other country. There is a huge mixture of race and religions, with the ordinary religious hatred inflamed by a tropical climate and tropical diseases. Small wonder then that after the terrible outbreak of 1857 Queen Victoria issued a proclamation announcing her intention to confine her servants to their official duties without the slightest interference with the creeds of her subjects. In a way, this has given the Catholic a freedom in India barely known till lately in many so-called Christian lands. It has given the Indian missionary an important place, for government institutions abstain from all religious distinctions and all religious training whilst missionary institutions are at liberty. It became clear at once to the fervent Protestant of America and England (and in a certain measure to the Catholic missionaries of recent foundations) that man's extremity in the convulsions of 1857 was God's opportunity of 1860.

Zenana Missions: During the next decade missionary societies were founded, and it was clear to all who knew the secluded state of women in India that medical aid, by the hands of qualified women, was the best means of reaching the homes of the people. I myself was born in 1867 of a family long used to going to and fro to the East. A grandfather died in 1844 at Trichinopoly of cholera, after writing (in those days before Koch) a tractate on cholera at Trichinopology, where I afterwards had in 1919 the honor of obtaining an **imprimatur** for a tract on Indian Catholic Medical Missions. A mother driven to quit India by ill health (in those days before electric fans and antimosquito measures revolutionized the East for Europeans and partially for such Orientals

as can and will use them) dedicated one of her children to the work she could not do herself, and other mothers of the day no doubt did the same. It is indeed interesting to those who watched the whirligig of time bringing round its revenges to see how good Protestants in this finest of their works, medical missions, have often repeated, and, in a way, justified some of the Catholic ways of medieval ancestors which they cast off at the Reformation. The dedication of children to a religious and self-sacrificing work is a case in point. At one time, I understand, boys and girls were admitted to the first steps of the religious life at an age earlier than is now allowed.

We sometimes are inclined to grumble that Catholics are slow to take up new ideas. Undoubtedly we have been very slow to organize such medical-mission work as the Protestant's. Yet honor where it is due. In 1891 I met at Dublin a young woman just qualified and even she was not the first Catholic woman to study medicine. Though she did not go to the Missions, she practiced for years with a Scotch woman in Scotland, where her mere presence must have suggested to Catholics the possibility of a new usefulness for Catholic women, and have demonstrated to Protestants that Catholics were not all "dry bones" as they seemed.

The Good Shepherd Nuns in India: Five years before she qualified, a brave Indian Catholic girl was studying medicine in Madras with the intention of helping the mission work of Catholics. In 1890 she joined the order of the Good Shepherd Nuns at the great military health station of Bangalore which has also a big native city. I had the pleasure of seeing her, still at work, there in 1919, reinforced by a comrade. These good nuns have financed several Indian Catholic girls in the study of medicine at the neighboring University of Madras, which took the lead in this whole matter even among Protestants and pagans. The nuns, according to their rule, do not receive actual maternity cases to treat, but they have a peculiar charity for them; they often receive and house Catholic women from far-away villages who otherwise would have no chance of arriving at the neighoring government maternity hospital in time. They are most desirous of medical recruits in any shape at the present time and have asked me to let it be known.

Catechist Sisters: At Bangalore too, has been working since before the war, a very recent and enlightened French Society which takes the humble name of "Catechist Missionaries of Mary Immaculate." They are a branch for mission life, of the daughters of St. Francis de Sales at Paris, founded by the late Madame Carré de Malberg whose headquarters are in Paris. There the rule is simply for ladies willing, to come and stay and do good works (teaching catechism and the like) in the city, for some weeks or months each year. They early developed a mission branch which has now three stations in India. Naturally the mission branch has a rule of its own. They tried China, but it was not found suitable for their rule at the time; and it must never be forgotten that the holding of the reins, by a European power, has enabled white women to live and work in India much more safely than in other Oriental countries. The control of France in the north of Africa and in Syria has acted to a certain extent in the same way. As regards this particular question of woman doctors and maternity, however, my impression is that it has not been used as a missionary opportunity very much along the north coast of the Mediterranean, except in Tangier and Egypt by the Protestants. I had some experience about 1908 in the Sudan and Egypt besides what I saw of the work of others. There is no doubt that the entrance gained to harems and (as they are called in India) zenanas, by woman doctors, can be used to introduce the dwellers to a knowledge of things Christian which they could attain in no other way. Among good devoted missionary doctor-women the way of introducing the subject differs. I know women who make it a rule never to visit such a place of non-Christian women without taking care to name at least the Name of names to one inmate.

Others make it a practice to leave a tract they may think suitable in the vernacular. Here again natives have often been brought around by experience to Catholic ways. The whole Bible is expensive and until lately very few shut-up women could read even their own tongue. The missionary doctor then sang some simple hymns (often, like the breviary hymns, being a devout narrative of some one of what Catholics know as the Mysteries of the Rosary). She then taught a verse of hymn or Scripture, preferably to a child, and remembered to ask the child for it on her next visit; or she was converted, by experience, to the good effects of a few simple Gospel pictures. Again one is reminded by their practice based on experience, of the foolishness of some Protestant objections to Catholic practice. How often has not the medical worker among the poor, heard cheap objection waste valuable moments in sending for the priest? In zenana visiting the good Protestant medical worker has to hit a wise medium between wasting valuable time in an urgent case, or on the other hand neglecting her plain duty as a missionary, "to speak of Jesus to the dying," as one very pious soul (who thought herself a Protestant) expressed it to me.

The Needs of Kumbakonam: The Catechist Missionaries are at Kumbakonam as well as Bangalore, where they need the assistance of properly qualified medical workers. They had, from 1920 for nearly four years, the assistance of a married Catholic woman-doctor. There is no doubt a use in these non-Christian lands for men to act as protectors, if such are to be found, especially in out-of-the-way places. Though it is not very common for Protestant missionary societies to send married-women workers for the first period of their work, they have found out how to make use of married couples when both are missionary hearted and both more or less medical. The fact remains that the Oriental does not altogether understand individual and independent spinsters; and in India one usually finds the woman-doctors either in a group residing and working together (often called the Protestant convent) or else as one of a married pair. It is no uncommon thing amongst them to find husband and wife both doctors, and both from the beginning missionary doctors. I know cases also where the wife is a nurse and the man a doctor or qualified druggist or other such worker. We could make use of modern Catholic Indian-born medical couples. It is naturally more expensive to send two than one but where medical work is, (as it often is) the only open door to the people's heart, the double passage is found. It is well, however, when no passage money is needed, but local help must be financed. The married pair at Kumbakonam are now replaced by an Indian woman practitioner. The conditions at Kumbakonam are such as to render it advisable that the doctor should have good periods to recuperate his or her health in the hills. Medical work unaided is very exacting.

Kumbakonam in a sense is a strategic point. The Brahmins are extremely strong there. They are in close touch with modern doctors (men and women) of their own race and sometimes of their own caste. The conditions of climate and health give the medical officer of health a most important position. When I, at the Catechist Sister's invitation, visited the place in 1919, the health officer was a Brahmin. They were on the lookout for any sign of weakening in the Catholic hospital, ready to put in one of their own. In fact, they would gladly buy the hospital if they could. What need there is then for reinforcement of the Nuns in funds and helpers! The post is hard for one doctor alone. What is needed in Catholic places is what the Protestants have by now achieved, at least a couple of doctors together, reinforced by trained nurses fit for any employ, and with proper periods to recuperate.

The Guntur Doctor Nun: One most important advantage is possessed by the nuns at Guntur in the Madras archdiocese. Early in 1920 there arrived from Australia a young, highly qualified Irish girl who, at an early age, had gone to Australia with her parents. As it was her intention to wear the religious habit, Archbishop Aelen of the Mill Hill Society obtained for her permission from Rome to practice all parts of her profession **in bonum Animarum.** This was announced by the official organ of the archdiocese, the "Catholic Leader," Madras, only so recently as this spring but the Nun-doctor has been at work quite seven years, and is highly appreciated by Catholics and non-Catholics. The same nuns are at work in other parts of this large archdiocese. The late Miss Goeckel of Milwaukee took great interest in their work. They conduct maternities with the aid of outside medical women of the country. As our Holy Father has lately reminded us in the case of priests, every country must in the end be served by its own countrymen. The same is the case in all careers of usefulness. Government in India and the Protestant missionaries everywhere have from the beginning promoted the professional education of the native people. By this time I have myself

worked with doctors in the East, European, American, and Indian born, but of a European parentage. But I have also worked with Chinese doctors (men and women, none of the latter as yet Catholic, however) with pure Indians (Protestants, Catholic, Hindu, or Mohammadan) and with Armenians, Egyptians, and even negroes. Naturally up to the present not many of the Oriental race quite come up to the standard of those who are white, and were educated at home, and very possibly come of families long professional. Still some in India claim an entire equality and this will doubtless be the aim of every missionary since the late words of the Holy Father on the subject. It is marvelous, I hear, how well many Chinese doctors have acted since they were deprived recently of white leadership. The Ursulines in Ranchi have since 1905 done a big work and the work of the Franciscan Missionaries of Mary at Rawal Pindi founded by the late Dr. Agnes McLaren is in everyone's mouth in the United States, I hope, since the advent of the Society of Medical Missionaries at Washington whose first work will be in Rawal Pindi.

As for what is today known as "maternity and child-welfare work," as distinct from hospitals, such has only recently been taken up by Protestants or by the government in India and has reached only the stage of discussion among us. One would think that it would be a good plan in India if every Church would conduct a "welfare" in some parish room. There are by this time, one thinks, enough Catholic practitioners of the Guild of St. Luke to work this in any very large town, but some organization is needed, such as the Catholic Medical Mission Board in the United States, to collect the not extravagant fund required. I might put before my readers that in these days of travel, the sight of poor, depressed, Catholic missions side by side with modern Protestant work, is not in itself an argument likely to make converts!

Associate Director of Catholic Medical Mission Board Has Begun Work in Rome

Rev. John P. Skelly, Associate Director of the Catholic Medical Mission Board of America, with national headquarters in New York City, according to a cablegram just received, has begun his work on the new international news service in Rome. Father Skelly sailed from New York on the SS. "Laurentice" on January 16.

Father Skelly was formerly a curate in the Brooklyn diocese. His appointment was announced by Rt. Rev. Thomas E. Molloy, D.D., bishop of Brooklyn, upon the request of His Excellency, Most Reverend Francis Marchetti Selvaggin, Secretary-General of Propaganda Fidei. Archbishop Marchetti visited the United States late last fall, it will be recalled, to attend the annual meeting of the Society for the Propagation of the Faith. At that time he visited many of the missionary institutions of the country. Archbisop Marchetti is particularly interested in the promotion of medical-mission activities. The honor conferred upon the Associate Director of the Catholic Medical Mission Board is also a signal recognition to the organization.

Father Skelly has always been a missionary enthusiast. During his seminary days he was president of the St. John's Seminary unit of the Catholic Students' Mission Crusade. After ordination to the priesthood he was appointed field secretary of the Catholic Students' Mission Crusade in Brooklyn. He took a large part of the executive handling of the production in Brooklyn of the great crusade pageant, "The Dreamer Awakes," written by Rev. Daniel A. Lord, S.J. Later, the young priest crusader was chosen as an associate director of the Society for the Propagation of the Faith for his diocese. More recently his capability in missionary organization was nationally acclaimed when he was elected Associate director of the Catholic Medical Mission Board of America.

The preliminary work in organizing the Fides Service has been done by Rev. John J. Considine, A.F.M., who has been in Rome for the last three years. Father Considine is also interested actively in the Catholic Medical Mission Board. He was present at the meeting of the Board held in Spring Bank in 1924, and will be remembered by all those who attended this convention because of his clear judgment and understanding knowledge of missionary problems. Father Skelly will assist Father Considine on the Fides Service during his sojourn in Rome.

Will Some American Hospital Adopt?

Are there not twelve hospitals in the United States and Canada that would offer to take care of the support of a doctor in China for one month during the year? The following appeal comes from the good Sisters of Charity in Kinkiang who lost the services of their foreign doctor because of the uprising in China. It costs only $75.00 a month to support a native Chinese doctor graduated from the Aurora University of Shanghai. If twelve different hospitals would offer to send to the Catholic Medical Mission Board, $75.00 each, each hospital would be responsible for the salary of the doctor for one month.

In your charity, can you not see your way clear to do this? Hundreds of souls may be brought to see the Light of Faith by means of this medical-mission center. This will be your consolation, as well as the hundred-fold reward promised by our Divine Saviour.

The Appeal

St. Vincent's Hospital
Kinkiang, China

Catholic Medical Mission Board.
25 West Broadway,
New York City.
Reverend Dear Father,

In my great need of your generous assistance, I send you an appeal, asking your help to secure a native doctor for our hospital. I am certain that you know all the troubles we have had at Kinkiang. All of the foreigners have left the concessions, and our foreign doctor has gone with them.

This means that our hospital is left without any professional assistance. Perhaps it is best, since we have over 3,000 patients in a year, that we have a Chinese doctor. Personally I am not in a position to pay for his services as our hospital receives all of the poor patients free of charge. When the foreign doctor was in our city he did not receive any salary from us, but took care of the patients gratuitously. With a Chinese doctor this is impossible for they themselves are not rich and must be paid monthly. I have communicated with the director of Aurora University in Shanghai, and he has a fully qualified doctor—one who is a good surgeon, and an excellent Christian. He is from the south of China, so Kinkiang climate will not effect him in an unfavorable way. If we had the necessary $75.00 a month, which you will readily understand is little enough to cover his fees, I could make arrangements immediately with the Reverend Director at Aurora.

Will you, in your great charity, try to secure this money for us? We are in great need of a good doctor, since there is so much now for a Catholic hospital to do. Many of the Protestants who were here before the uprising, have not yet returned, and there is a tremendously large field open to us.

Thanking you most sincerely for your interest and assuring you of our prayers for your noble work, I am,

Yours very gratefully,
The Sister Superior,
SISTERS OF CHARITY

This Mission Needs a Sterilizer

Because of the thoughtfulness of a superior of a hospital to whom HOSPITAL PROGRESS brought the appeal, recently a medical mission hospital in India received a much-needed microscope. Now comes a request from the Franciscan Sisters at Nsambya Mission (Kampala P. O. Box 246), Uganda, B. E. A., for a sterilizer. Sister M. Solano, O.S.F., superior of this hospital, says that they are performing many operations and that they are badly in need of a sterilizer.

The scope of the work of the mission hospitals in this locality is illustrated by the following letter to the Reverend Mother Superior of the Franciscan Sisters at Nsambya Mission. The letter was written by two non-Catholic doctors.

Kampala, Uganda.

Dear Rev. Mother.

We think that perhaps the following note, coming as it does from two non-Catholic medical men, may be helpful in making plain the nature and scope of your hospital work.

There are in Uganda at the present time three types of hospitals, each doing its appropriate work. First, the government hospitals, which are mainly engaged in looking after the more able-bodied portion of the population, especially as regards infectious and venereal diseases; the church missionary society's hospitals, famed for their operative work, and finally, as a new venture, the Nsambya Mission Hospital as developed by the energy of Reverend Mother Kevin, M.B.E.

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